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IMPROVING WATER QUALITY MANAGEMENT PLANNING IN NONMETROPOLITAN AREAS

E. Evan Brunson, et al

National Area Development Institute of
Spindletop Research, Incorporated

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Improving Water Quality Management Planning In Nonmetropolitan Areas

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16. Abstracts

Report on survey of three states by representatives of EPA and three other involved Federal agencies. Study revealed lack of coordinated intergovernment approach, general lack of understanding of water quality management planning as it relates to cost-effectiveness, low level of financial support in these areas, reliances on State water quality agencies, and inconsistency in priorities of State agencies. Institutional trends are reported with emphasis on use of Clearinghouse concept specified in O.M.B. Circular A-95. Recommendations made for changes at Federal and local level.

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OFFICE OF AIR AND WATER PROGRAMS
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I. INTRODUCTION

BACKGROUND

In many, if not most, of our nation's nonmetropolitan areas, water quality has been a relatively recent concern and planning of any type a relatively primitive process. These areas are characterized by many pollution problems common to urban areas-plus additional ones associated with agriculture and rural based industry-and a lack of resources and institutional capabilities to cope with them in compliance with emerging planning requirements.

The Environmental Protection Agency contracted with the National Area Development Institute of Spindletop Research, Inc. to examine water quality management planning in nonmetropolitan areas and recommend improvements reflecting both national policy and the diverse problems of these areas. The direct objective of the study was to assist EPA in adapting its requirements more closely to nonmetropolitan problems and to prescribe appropriate roles for other Federal and State agencies and substate planning and development organizations in the process.

METHOD OF APPROACH

The field survey method was chosen as the best way to provide maximum insights into a complex situation. Three States - Oregon, Wisconsin and South Carolina - were selected, each containing several nonmetropolitan substate districts, and representing different intergovernmental approaches to water quality management planning and a significant amount of program activity by the four Federal agencies involved. They also presented sufficient commonality to provide valid general conclusions.

EPA, the Economic Development Administration, the Department of Housing and Urban Development and the Farmers Home Administration formed an ad hoc interagency committee to help guide the effort. Selected regional, State or area offices of all four agencies were contacted as part of the study, as were their Washington-based officials.

REPORT ORGANIZATION

Following this introductory section, the report contains an executive summary, sections on current water quality management planning activities of Federal, State and regional agencies, the nonmetropolitan organizational setting in which the process occurs, a discussion of conclusions and recommendations.

LEGISLATIVE REFERENCES

The study's field work, report preparation and publishing arrangements were completed prior to passage of the Federal Water Pollution Control Act Amendments of 1972. Therefore, the references to legislation and related regulations in this report refer to various sections of the Federal Water Pollution Control Act prior to the 1972 amendments.

II. EXECUTIVE SUMMARY

INTRODUCTION

This report describes the results of a study conducted by the National Area Development Institute for the Environmental Protection Agency on ways to improve water quality management planning for nonmetropolitan areas.

The findings and recommendations set forth in this report are based on a field survey of three states, interviews with officials of EPA, HUD, EDA and FHA, and observations made by the project team in connection with other NADI research and related activity in support of nonmetropolitan area development.

The research focused on the four agencies' programs related to water quality management planning, EPA's planning guidelines, the EPA-HUD Joint Agreement on unified planning requirements and other attempts to devise a coordinated approach. Needs of nonmetropolitan areas to cope with both urban-type pollution problems and nonpoint sources peculiar to the rural setting were analyzed in terms of the capabilities of existing and emerging institutions.

NONMETROPOLITAN WATER QUALITY PLANNING PRACTICES

Water quality management planning, in the dimensions of the truly intergovernmental process envisioned in the EPA Guidelines, is virtually nonexistent in nonmetropolitan America. Interviews with Federal, State and substate district officials revealed the:

- Absence of a coordinated intergovernmental approach to planning among Federal agencies with programs related to water quality.
- Lack of understanding of the concept of water quality management planning, particularly as it relates to areawide cost effectiveness considerations.
- Low level of financial support for water quality management planning in nonmetropolitan areas.
- Difficulty in applying the uniform planning requirements of the "EPA-HUD Joint Agreement" in the diverse nonmetropolitan situations.
- Almost total reliance of State water quality agencies on regulation and enforcement rather than on a balance in emphasis between regulation, enforcement and management planning to achieve water quality goals.
- Conflicts over priorities resulting from basic differences between the primary objectives of areawide planning agencies and those of basin-oriented State agencies.

On the other hand, the survey disclosed some activities which suggest the elements of a workable framework for coordinating water quality management planning in nonmetropolitan areas. The most promising instances were found where:

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- Regional EPA representatives are working with other Federal and State officials to design and implement a strategy for relating areawide comprehensive and functional planning to the needs of water quality management planning.

- State A-95 Clearinghouse agencies strongly support water quality management planning and play an active role in the coordinative process.

- Nonmetropolitan areawide planning agencies have developed a coordinated approach to areawide planning by linking comprehensive planning and functional water/sewer planning funded by HUD and FHA with EPA's requirements for water quality management planning.

- EPA, HUD, FHA and EDA Regional, State and Area Office officials are attempting to coordinate with one another the planning requirements and project grants of four Federal programs supporting planning and construction of water, sewer and waste disposal facilities.

INSTITUTIONAL TRENDS

In addition, it is becoming increasingly clear that:

- Planning and development activities being undertaken by nonmetropolitan district organizations will have an important influence on water quality management, and in turn, will be equally influenced by water quality considerations.

- Regional offices of Federal agencies are playing an increasingly significant role in grant-in-aid program planning and administration.

- The States are assuming increased responsibility in the planning and administration of Federal grant-in-aid programs.

- Substate District Planning Agencies, now serving nonmetropolitan areas of some 40 States, are rapidly blanketing the nation and are being used increasingly by the States for planning and administration of Federal and State programs and as Regional A-95 Clearinghouses.

- Federal reliance on guidelines tends to place more emphasis on procedure rather than performance. When mandatory provisions are unrealistic, the whole approach is discredited.

The survey findings in combination with observations on institutional trends form the basis for concluding that water quality management planning for nonmetropolitan areas can best be accomplished by designing an overall planning strategy to coordinate water quality planning activities systematically with other related areawide planning programs at the substate district level. It was further concluded that:

- State designated substate district planning agencies constitute a major resource for the accomplishment of water quality management planning in nonmetropolitan areas.

- State designated water quality agencies are in the best position to provide liaison between substate district planning agencies and EPA regional offices with respect to water quality management planning. They are also in the best position to serve as a statewide clearinghouse for water quality oriented technical assistance.

- A-95 Clearinghouse agencies at the State and regional levels can play a key role in coordinating water quality management planning with comprehensive and other related planning activities within the state.

- EPA Regional Offices are the logical focal point for coordination among HUD, FHA and EDA (Regional, State or Area offices), the States and their substate districts in putting into effect an areawide water quality management planning process in nonmetropolitan areas.

- Timetables for the completion of areawide water quality management planning in nonmetropolitan areas would be more effective if scheduled on the basis of a realistic assessment of areawide planning agency capabilities, accomplishments and anticipated progress.

Finally, nonmetropolitan water quality management planning will proceed slowly at best until funds are made available to support the required effort.

These conclusions, when considered in light of the goals and objectives of EPA, reveal the following broadly stated needs which must be met if improved water quality management planning is to be accomplished in nonmetropolitan areas:

- **Better understanding** of the purposes and benefits of water quality **management planning** on the part of other Federal agencies and the States.

- **A Coordinative approach** to water quality management planning throughout the full range of the intergovernmental decision-making process.

- **A Stronger role for nonmetropolitan substate district planning organizations** as active participants with State and Federal agencies in the intergovernmental decision-making process.

- **More flexible planning guidelines** for water quality management planning **for nonmetropolitan areas.**

- **Increased funding** for water quality **management planning** in nonmetropolitan areas.

RECOMMENDATIONS

The following recommendations represent a significant modification of the current approach to guideline administration and to unifying planning requirements of four Federal agencies. It is based on the conclusion that because of the diverse situations which exist in nonmetropolitan areas, a coordinative planning approach focused at the substate district level would be more effective than an approach which places primary reliance on Federal level interagency agreements on detailed uniform planning requirements.

Coordinative planning on an areawide basis would place water quality considerations in the context of systematic decision-making at the operational level. The nonmetropolitan agencies recommended to play a key role here reflect increasingly the involvement of State governmental authority to which EPA looks for enforcement. The substate district entity thus represents the internal discipline of multifunctional planning relevance and legitimate authority.

Concededly, substate regionalism is at an early stage in its evolution. Funds to support planning are scarce. And much time and manpower will be required to undertake the coordinative process recommended.

The coordinative process offers the opportunity to negotiate the conduct of areawide comprehensive and functional planning so that the fulfillment of one agency's planning requirements meets those of other. The flexibility inherent in tailoring requirements to actual needs should reduce expenditure of resources for irrelevant exercise and generate respect for requirements imposed. And to the extent that substate regionalism represents great potential for genuine program coordination, horizontal and vertical, EPA can both contribute to and benefit from its emergence.

In order for the concept of coordinative planning to be fully operative on behalf of water quality management in nonmetropolitan areas, it is recommended that the Environmental Protection Agency lend all possible support and encouragement to State actions:

1. Requiring **Nonmetropolitan Areawide Water Quality Management Plans** for all nonmetropolitan areas which are served by a State-designated substate district planning agency.

2. Assigning responsibility for the development of **Nonmetropolitan Areawide Water Quality Management Plans** to officially designated substate district planning and development agencies unless such action is clearly unwarranted.

To permit the varying levels of detail necessary to reflect the diversity of problems and institutional capabilities in nonmetropolitan areas, it is recommended that EPA-OWP:

3. Establish flexible planning requirements for **Nonmetropolitan Areawide Water Quality Management Plans** designed to insure realistic consideration of nonmetropolitan areawide water quality problems and maximum utilization of related planning activities.

To reinforce and otherwise support the role of substate districts in areawide water quality management planning for nonmetropolitan areas, it is recommended that EPA:

4. Correlate the deadlines for completion of initial **Nonmetropolitan Areawide Water Quality Management Plans** with the availability of water quality management planning funds and with implementation schedules established in the water pollution control amendments of 1972.

5. Include planning status and performance assessments in interim criteria for facility grant eligibility pending satisfactory completion of each district's **Nonmetropolitan Areawide Water Quality Management Plan**.

6. Prepare technical handbooks and other information on nonmetropolitan water quality problems for use by substate planning agencies in developing **Nonmetropolitan Areawide Water Quality Management Plans.**

7. Establish a nontechnical information and educational program to build understanding of the purposes of, and the need for, cost-effective water quality planning on the part of local officials.

8. Encourage maximum involvement of State A-95 Clearinghouse agencies in all aspects of water quality management planning.

And finally, if water quality management planning is to be accomplished in nonmetropolitan areas quickly enough to affect expenditures in the time frame envisioned in the water pollution control amendments of 1972, it will have to be funded on an accelerated basis.

Therefore, it is strongly recommended that:

9. Every effort be made to stimulate and fund water quality planning grant applications from State-designated substate district planning agencies.

10. Federal and State agencies supporting water quality related planning should be encouraged to increase their technical and financial support for such planning, and to coordinate their implementation timetables and planning requirements whenever possible.

Actions to implement these broadly stated recommendations for improving water quality management planning in nonmetropolitan areas are presented in detail in the last section of the report.

III. CURRENT WATER QUALITY MANAGEMENT PLANNING PRACTICES

INTRODUCTION

This chapter traces the increasing involvement of the Federal government in water quality management as reflected in four agencies' programs for facilities and planning. Response to the need for coordination in terms of cost-effectiveness and resolution of interprogram conflicts are analyzed in relation to the HUD-EPA agreement and the unified Guidelines for Water Quality Management Planning. Problems in unifying planning requirements identified in the field survey are discussed and related to the operations of agencies not covered by the interagency agreement.

State approaches to water quality management are reviewed with emphasis on their varying relationship to other environmental concerns and their regulatory focus as opposed to management planning. The advantages and disadvantages of the different institutional roles identified are discussed in relation to the balanced approach implicit in the Guidelines. Also included is a discussion of OMB Circular A-95 as to its relevance to water quality management.

BACKGROUND

Water pollution problems have been of concern to the States, municipalities and the Federal government for some time. Historically, the approach to these problems has been to set in-stream water quality standards for river basin hydrologic systems and to construct facilities to treat liquid wastes which flow into these systems to achieve established water quality standards.

Traditionally, the costs of constructing and maintaining waste water treatment systems have been the responsibility of State and local governments. However, as it became apparent that their resources were inadequate to cope with the ever-increasing costs of water pollution control, the Federal government began supporting the construction of municipal waste water collection and treatment facilities. The Federal Water Pollution Control Act of 1964, as amended, (P.L. 84-660) made "the prevention, control, and abatement of water pollution" to "enhance the quality and value of . . . water resources" a national goal. With creation of the Environmental Protection Agency in 1970, this goal was made the primary mission of EPA's Office of Water Programs (EPA-OWP).

The major tool available to EPA-OWP is its construction grant program. Section 8 (a) of P.L. 660 authorizes grants "for the construction of necessary treatment works to prevent the discharge of untreated or inadequately treated sewage or other waste into any waters and for the purpose of reports, plans, and specifications in connection therewith."

Since the enactment of Section 8, massive Federal financial support has been provided for the construction of municipal waste treatment facilities. Nevertheless, it became apparent that the continued massive investment of Federal funds would not be sufficient to meet national goals for clean water unless steps were taken to assure that these construction grants were based on sound cost-effectiveness principles.

To maximize cost-effectiveness of Federal investments, Congress required that "no grant shall be made for any project . . . unless such project shall have been approved by the appropriate State

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water pollution control agency . . . and unless such project is included in a comprehensive program . . . and . . is in conformity with the State water pollution control plan . . ." This provision resulted in the promulgation of regulations requiring that EPA construction grants be awarded only for those projects included in current and effective River Basin and areawide water quality management plans.

FEDERAL WATER QUALITY PROGRAMS

Presently four Federal agencies provide grants or loans for planning and construction of water, sewer and/or waste water treatment facilities. EDA and FHA administer grant and loan programs primarily serving nonmetropolitan areas, while HUD and EPA operate grant programs for both metro and nonmetro areas.

Environmental Protection Agency

* The programs administered by EPA's Office of Water Programs (OWP) are primarily concerned with encouraging the construction of adequate waste water treatment facilities. The basic construction grant program, authorized by Section 8 of P.L. 660, provides Federal funds ranging from 30 to 55 percent of the cost of municipal waste water treatment facilities.

* OWP administers the basic planning grant program under Section '3c' of P.L. 660 supporting the development of comprehensive river basin and areawide water quality management plans. Fifty percent of the cost of the planning must be provided by State and local governments.

* Annual State Program grants under Section 7 of P.L. 660 are also administered by OWP. These grants provide basic support to State water quality agencies to assist them in prevention and control of water pollution.

Department of Housing and Urban Development

HUD makes grants to assist and encourage communities to construct adequate basic water and sewer facilities to promote orderly development. This program applies primarily to urban areas of greater than 5,500 population. Grants cannot be made for the construction of "treatment works" which are eligible for assistance from EPA. HUD grants generally cover 50 percent of the approved project cost, but can, under certain circumstances, cover up to 90 percent.

Planning for these programs is supported by HUD's '701' Comprehensive Planning Assistance Program and is tied into HUD's Areawide Certification Requirements.

The Farmers Home Administration

FHA administers two grant programs which bear directly on water quality management planning in nonmetropolitan areas:

- Comprehensive Areawide Water and Sewer Planning Grants for Rural Communities; and
- Water and Waste Disposal Systems Grants and Loans for Rural Communities.

* In the order mentioned above, the legislative references are superseded by Title II and Title I, Sections 102 and 106, under the 1972 Amendments of the Federal Water Pollution Control Act, P. L. 92-500.

Both programs have been limited to rural areas and towns up to 5,500 population.

FHA has not formally entered into an agreement with HUD and EPA on unification of planning requirements.

Eligible applicants for FHA planning grants include any municipal government and public bodies such as regional and local planning commissions, provided they are broadly based and representative of rural interests, and propose a plan that is supported by local officials and public and private agencies interested in water/sewer facilities development in the area. Until recently, grant recipients must have had authority to prepare official comprehensive plans.

FHA planning grant assistance is usually for the total cost of the project. To receive a planning grant, the applicant agency has been required to submit evidence of authority to prepare official comprehensive plans, and evidence that resources are not available to finance the planning effort.

FHA facilities grants and loans can be awarded to public or quasi-public bodies and not-for-profit corporations. Grants and loans for waste disposal systems may be used for the installation, repair, improvement or expansion of sewer lines, waste collection, and treatment of all wastes in rural areas and towns up to 5,500 population. Grant assistance is limited to one-half of the project cost. Loan and grant assistance may cover the total project cost if the applicant is financially unable to contribute a part of the cost. To be eligible for grant assistance, the project must be consistent with a comprehensive areawide water and sewer plan for the area.

Economic Development Administration

EDA makes basic and supplemental grants and loans for the construction of public works and economic development facilities in designated geographic areas with high unemployment and low per capita incomes. The basic EDA grant is for 50 percent of the project cost, but may be increased up to 80 or even 100 percent in severely depressed areas that cannot match Federal funds. Long-term loans may be made when reasonable financing terms are not otherwise available from private lendors.

EDA supplemental grants are made to increase the total Federal share of the project cost in designated areas. The applicant must apply for all available assistance from other Federal agencies before EDA will make a supplemental grant.

Throughout the history of the EDA program, approximately 70 percent of total public facilities grants have involved water and sewer projects. EDA can support such facilities provided the project improves opportunities for industrial or commercial development, otherwise assists in the creation of additional long-term employment opportunities, primarily benefits the unemployed or low-income families, or furthers the objectives of the Economic Opportunity Act of 1964.

FEDERAL PLANNING COORDINATION

This portion of the report deals with the planning requirements and the coordinative efforts of the four Federal agencies which fund water quality improvement facilities. Each agency (EPA, HUD, FHA and EDA) operates under its own Congressional mandate and, until recently, each has

approached the question of planning requirements in its own way. Although all four agencies have been discussing ways to improve coordination of planning, only two–EPA and HUD–have reached joint agreement.

The signing of this "Joint Agreement for Interagency Coordination in Planning and Development" on June 7, 1971, represented a significant step in implementing planning unification. This agreement provides for "coordinated administration of comprehensive and functional planning and construction grant requirements." Grants awarded by HUD and EPA "must meet the same administrative and regulatory requirements with respect to comprehensive and functional planning, and programming of waste water collection and treatment systems."

In January 1971 EPA issued "*Guidelines–Water Quality Management Planning*," to implement EPA's regulations 18CFR 601.32 and 33 published on July 2, 1970. The regulations state that "no grant shall be made unless the project is included in an effective current basin-wide plan for pollution abatement." The regulations further provide that "a grant for a project shall not be made "unless . . . such project is included in an effective metropolitan or regional plan . . . and certified by the governor or his designee as being the official pollution abatement plan . . . for the metropolitan area or region . . . '

The Guidelines call for both the basin and areawide metropolitan/regional plans to be completed and in effect by July 1, 1973.

Finally, the Guidelines envision the creation of an intergovernmental management system to accomplish the most cost-effective solution to local water quality management. The intergovernmental planning process involves the development of water quality management plans on two distinct but related geographic scales:

1. Basin hydrological systems; and,

2. Metropolitan/Regional (M/R) planning areas.

River Basin plans define the total water discharge allowable from each metropolitan/regional area and for the M/R plans to define the most cost-effective solution for achieving this permissible level. Thus, the M/R Plan must allocate each waste discharge according to the most cost-effective regional system, consistent with the overall strategy defined in the basin plan.

To support implementation of this kind of planning process at the M/R level, the Guidelines also call for M/R planning organizations to concentrate on the institutional arrangements necessary to implement the Metropolitan/Regional Plan and the Basin Plan. Finally, the Guidelines envision the effective application of the "A-95" Clearinghouse function at the M/R level in establishing coordinative relationships between institutions to assure that Federal planning and construction grants are consistent with areawide comprehensive planning and water quality management planning.

To date, EPA and the States have concentrated on water quality management planning for river basins, carried out primarily by the States, and for metropolitan areawide planning. Little attention has been given nonmetropolitan areas.

Implementation of EPA-HUD Joint Agreement

The tri-State survey found that little progress has been made in implementing unification of HUD-EPA planning requirements.

The major problem appears to be the relationship between HUD-required areawide functional water/sewer facilities plans and EPA-required areawide Water Quality Management Plans.

Chapter 1, Paragraph 6, B. of the EPA Guidelines for Water Quality Management Planning States:

> "Areawide (Metropolitan/Regional) Plans. These areawide plans are subsets of the Water Quality Management Plan for a river basin **and are the functional waste water collection and treatment (sewerage) plan elements of the comprehensive areawide Plan as set forth in the HUD Areawide Planning Requirements.**" (emphasis added)

This language appears to be clear enough. EPA Areawide Water Quality Management Plans and HUD areawide water/sewer facilities plans are to be the same. One plan should be prepared to meet the requirements of both agencies.

This interpretation is supported by the language of Paragraph 4, B. of the EPA Supplementary Guidelines issued in September, 1971:

> "HUD certifies metropolitan/regional water quality management plans, after EPA has found them acceptable, as meeting the functional planning and programming criteria for water and sewer facilities as set forth in HUD's Circular Series MPD 6415 (July 31, 1970)."

Yet, not State or areawide planning official interviewed during survey felt that a HUD ıter/sewer functional plan element aı d an EPA areawide Water Quality Management Plan were the same. Similar responses, with one notable exception, were expressed by those EPA and HUD Regional and Area office personnel interviewed.

Several factors which were identified in the survey help account for problems in implementing unification:

1. The type of areawide water/sewer plans approved by HUD to meet the requirements for functional waste water collection and treatment systems planning (Certification III) varies greatly. Some are primarily a facilities inventory. Others are approved as preliminary plan elements with an action program for implementation. Some deal with water supply, sewers, storm drainage, and treatment systems, while others only cover some of these facilities systems. Some approved water/sewer plan elements include interim programs for sub-areas of HUD-designated Areawide Planning Jurisdictions (APJs). Others include action programs for the entire APJ. This diversity makes it even more difficult to unify HUD and EPA requirements.

2. There is no consistency in the geographic coverage of HUD and EPA plans. EPA's interim procedures allow for designation of sub-APJs for the purpose of awarding EPA construction grants. Under this procedure, interim water quality management plans are often prepared for a municipality and its environs to meet EPA's planning requirements.

However, HUD generally requires areawide water/sewer functional plans for larger APJs. Often the larger APJ is the entire area served by the Areawide Planning Organization.

3. For communities to remain eligible for HUD facilities grants, a HUD-approved areawide water/sewer plan element was required as of July 1, 1972. Although the HUD deadline has since been moved back, "fully developed" plans to meet EPA's requirements are not required until July 1, 1973. In the meantime, EPA is operating under "modified" interim procedures. Thus, in order to meet the earlier HUD deadline, the survey found that HUD offices were approving water/sewer plan elements with little consideration given to EPA's water quality planning requirements.

These factors all contribute to the confusion concerning the required content of the two agencies' plans and the standards employed to evaluate them. Most of the HUD and EPA Regional and Area Office officials interviewed feel that both the planning procedures and objectives of the two plans are significantly different. They point out that HUD water/sewer plans are service-oriented, while EPA plans are concerned with the technical performance of the sewerage facility. Priorities for HUD facilities grants are based on areawide or local considerations set forth in the areawide water/sewer plan element. Priorities for award of EPA construction grants are determined on the basis of basin and interbasin considerations. In addition, the Guidelines for Water Quality Management Plans call for planning standards and procedures which are more rigorous and technically oriented than those required by HUD for areawide water/sewer planning.

The survey found only one area where a real effort was being made to satisfy both HUD and EPA requirements through one planning process based on one set of planning procedures–the unified Guidelines. This effort was funded by an EPA '3c' grant to an areawide planning agency which had not undertaken a HUD-supported water/sewer planning element. However, HUD officials were ambiguous when asked if such an approach would meet HUD's functional water/sewer planning requirements.

In another area, the areawide planning agency was applying for a '3c' grant from EPA to expand its on-going HUD water/sewer planning to meet EPA's areawide water quality management planning requirements. However, there was no evidence that this approach has been frequently used in nonmetropolitan areas.

Farmers Home Administration

The survey found that FHA's approach to comprehensive rural water/sewer planning is undergoing substantial change to meet the need for coordinated areawide water/sewer/water quality planning and programs. In the past, FHA has usually funded **single-county** comprehensive water/sewer plans in rural areas. FHA contends that the failure of many States to adopt legislation establishing substate planning agencies often prevented funding of areawide or multicounty water/sewer plans due to the statutory mandate that FHA planning grants must be awarded to organizations with authority to prepare **official** plans. According to FHA officials, it has always been their policy to fund areawide planning agencies whenever the agency has the legal basis to prepare official plans.

Single County Plans. The survey found that FHA plans, prepared and completed on a single-county basis, are often criticized by Federal, State and local planning officials as being deficient in several respects. Typical of the comments obtained:

- They were usually prepared by consultants with little local input in the form of citizen participation or guidance from local officials;
- They often represented no more than a "needs" study, but with a system designed for every small town regardless of the actual need;
- The goal of these FHA plans was often merely to justify FHA facilities grants and loans;
- They often failed to establish priorities for implementation;
- They often were not coordinated with HUD and EPA planning for the same areas; and
- The bulk of the planning effort was usually devoted to the "comprehensive" component dealing with general background information about the area, with less emphasis placed on the design of physical systems.

Areawide Planning. The survey found that FHA's areawide approach to rural water/sewer planning is resulting in better coordination with other Federal and State programs related to water quality management. In all three States, FHA State Office officials are taking the initiative in coordinating both FHA planning and facilities grants and loans with EPA, HUD and EDA water/sewer programs.

In some States, areawide planning agencies are being funded simultaneously with HUD and FHA grants. In these instances, nonmetropolitan planning agencies can integrate water/sewer planning for the entire area using HUD funds for urban areas not eligible to be included in FHA plans. In addition, the "comprehensive" planning data required by HUD can be used to meet FHA planning requirements and vice-versa. Finally, one set of plans, covering land-use, population and economic studies, and areawide rural-urban water/sewer facilities, can be developed to meet both FHA and HUD requirements.

However, this approach to HUD-FHA coordination has not been widely utilized to date. In many areas, the problems of integrating on-going HUD areawide water/sewer planning with completed FHA single-county water/sewer plans for rural areas and smaller towns is proving to be a difficult task.

FHA-EPA Planning Coordination

In all three States surveyed, FHA was attempting to build into its planning contracts with nonmetropolitan areawide planning agencies some of EPA's areawide water quality management planning requirements. Most commonly, the elements include a preliminary land-use sketch plan, location of waste discharges, applicable water quality standards, identification of where these standards are not being met, an evaluation of the adequacy of existing treatment facilities to meet long-term water quality standards and water uses, opportunities for regionalizing municipal waste treatment facilities, future treatment facilities needs and the anticipated impact on water quality standards, and an assessment of the plan's impact on the environment.

Some FHA planning contracts also require the development of a general abatement program for water pollution control in the planning area, and a detailed abatement program for waste water disposal for each community in the area under 5,500 population.

On July 17, 1972, FHA informed its State Directors that all FHA funded water and sewer plans must be reviewed by the appropriate State water pollution control authority to determine if the proposed plan is consistent with applicable water quality standards. The survey found that such reviews had previously been required by some FHA State Offices to assist areawide planning agencies with EPA water quality planning requirements.

While this procedure may be of some benefit to areawide planning staffs in terms of advice and technical assistance concerning EPA requirements, it does not assure coordination between FHA areawide water/sewer planning and on-going river basin planning conducted at the State level. In the past, most FHA contracts left the local planning agency with the burden of assuring that adequate coordination is accomplished. The survey found that this approach did not result in adequate river basin - FHA planning coordination. New FHA directives issued in 1972 appear to call for FHA State Offices to play a stronger role in assuring intergovernmental planning coordination for waste water collection and treatment systems.

With regard to FHA grants for construction of water and waste disposal facilities, the survey found little relationship between FHA water/sewer projects and FHA comprehensive water/sewer plans, even though the statutory provisions for this program require that projects must be consistent with a comprehensive water or sewer development plan for the rural area. Furthermore, FHA grants and loans for rural water systems are usually made without any direct coordination with the State water quality agency concerning water quality considerations. In some cases where construction of a water system is tied in with the construction of a collection system, the State water quality agency must approve the project. Ordinarily, however, plans for FHA-funded rural water system projects are not reviewed by State water quality agencies unless an increase in treatment is required. For those water systems that involve disposal through septic tanks, State Departments of Health usually serve as the agency responsible for plan review and approval.

Where FHA grants and loans are made for construction of collection and/or treatment systems, the survey found that procedures for linking these projects with water quality planning are evolving. Some State water quality planning agencies review and approve all engineering plans for the construction of collection and treatment systems. In one State, FHA has even set up a priority system for waste disposal system construction grants and loans based on the State's priorities for municipal waste treatment needs, as set forth in the State's Section 7 Annual Program Plan for EPA. In this instance, joint funding of rural treatment projects among FHA, EPA or State water quality program funds is the usual procedure. This joint funding of FHA projects provides a means of coordinating FHA sewerage projects with EPA water quality management planning, since an EPA Section 8 grant can only be awarded if the project is included in a River Basin and areawide Water Quality Management Plan and is included in the State's list of annual priorities.

In summary, the survey revealed that FHA State Office officials are using a variety of techniques to coordinate FHA funded water/sewer planning projects with other Federal agencies involved in water/sewer planning and with State water quality planning agencies. While some deficiencies in coordination still exist, the progress being made in intergovernmental coordination is encouraging. Although the standards for FHA comprehensive rural water/sewer planning requirements do not

meet EPA standards for water quality management planning, an attempt is being made on the part of FHA officials to coordinate FHA planning requirements with those of EPA.

Economic Development Administration

EDA requires that the area for which an EDA supported project is to be undertaken have an approved Overall Economic Development Program (OEDP) and that the proposed project be consistent with it. The OEDP is the basic locally developed comprehensive planning document for all EDA programs. OEDP's are prepared on the basis of single-county redevelopment areas or for multicounty Economic Development Districts (EDDs). An OEDP contains basic physical, economic and demographic data for the area, an analysis of the area's natural and community resources, goals and objectives for the area and a detailed strategy for economic growth, a work program setting forth planning and project priorities, and the designation of cities and towns in the area as economic growth centers. EDA is currently developing guidelines for the preparation of an environmental assessment which will be part of the OEDP process.

EDA also requires that the initial project application must show how the project will contribute to the economic development of the area. This requirement is satisfied through an estimate of the number of persons that will benefit from the project, either directly, or indirectly as employees of firms using the facility.

Planning Coordination. Although EDA provides both basic and supplemental grants for a large variety of public works projects, the survey indicated that EDA sewerage facilities grants are often used to supplement basic grants from FHA, HUD or EPA. In some cases, as many as three agencies provide grant assistance for a collection and treatment system project. In the case of EDA supplemental grants, the applicant must comply with the planning requirements of the agency providing the basic grant support. Where two or more agencies jointly fund a project, a lead agency is usually selected to assure that the appropriate planning requirements are met. This procedure provides for coordination of EDA's sewerage facilities grants with the planning requirements of other Federal agencies.

The survey showed that EDA does not often make the basic grant for a sewerage facility unless FHA, HUD and EPA cannot or will not fund the project. When EDA makes the **basic** grant, the project is not ordinarily included in the water quality management plan for the area. Only where the State water quality planning agency has approval authority over plans for collection and treatment systems projects and uses it to assure that EDA projects are consistent with appropriate water quality management plans, are EPA's planning requirements met.

The survey showed that EDA most often supplements **FHA** grants or loans for water and sewer facilities. Here again, there is no assurance that the project will be consistent with water quality management planning for the area. Only where **EPA** jointly funds a project with EDA is there reasonable assurance that the project will be consistent with the appropriate water quality plans.

EDA Areawide Comprehensive Planning and Organizational Requirements. A more serious obstacle to unified planning requirements results from the differences between EDA's requirements for an Economic Development District organization and HUD's district organization requirements.

EDA does not require EDDs to meet certification requirements similar to HUD's regarding organizational, and comprehensive and functional Areawide Planning Requirements. As a result, a significant number of EDDs across the country have not been certified by HUD. Most of these uncertified EDDs are not likely to meet HUD's Areawide Planning Requirements for Certification until and unless they receive HUD '701' Comprehensive Planning Assistance grants.

The main conflict between EDA and HUD planning requirements centers on the type of planning which HUD requires. EDA does not require a land-use plan, a housing element, or a functional water/sewer plan element as does HUD. Since EPA has adopted HUD's organizational and planning requirements, many nonmetropolitan counties and municipalities served by non HUD-certified EDDs will not be eligible for EPA Section 8 Construction Grants for waste water treatment facilities once the EPA-HUD Guidelines for Water Quality Management Planning are fully implemented.

STATE INSTITUTIONAL ARRANGEMENTS

The provisions of PL 660 give the States prime responsibility for developing the most effective internal institutional arrangements for achieving water quality objectives.

The States rely on several administrative devices to achieve their objectives:

- Designation of appropriate State agencies to administer the State's water pollution control activities and to accomplish the requirements for river basin planning;

- Preparation of the Annual State Program Plan, covering all aspects of water pollution control for the coming year, including goals, planned activities, funding sources, budget levels, and legal authority; and State's strategy and schedule for accomplishing EPA requirements for River Basin and Metropolitan/Regional Water Quality Management Plans; and one and five-year schedules of priorities for Section 8 construction grants to meet the State's "Municipal Waste Treatment Needs;"

- Designation, in cooperation with EPA and HUD, of areawide planning organizations to accomplish the necessary areawide Water Quality Management Plans, and;

- Certification that the State's areawide and River Basin Water Quality Management Plans are consistent and conform with State programs.

Through these management devices, a pattern for water quality management is evolving geared to each State's particular experience, problems and existing institutional arrangements. In response to the goals of various Federal programs, and to the administrative procedures and regulations promulgated to implement them, the management systems in each of the States have certain similar characteristics. All function within a framework of intergovernmental cooperation to achieve certain national goals. And all utilize similar administrative processes, e.g., State program plans, water quality standards, discharge permits, etc.

In many States, separate agencies have been established to deal with water supply, water pollution control, water use, and other natural resources. When all water-related planning and programming are considered, there are few State agencies whose programs do not have an impact on, or will not be directly or indirectly affected by water quality management planning. The most obvious

examples include agencies whose mission concerns economic development, community services, and comprehensive State planning.

State Agency Roles

From the findings of the survey and a cursory review of designated State agencies, it appears that more and more States are consolidating environmental control activities (air, water and solid waste) into a single agency. Two dominant characteristics were identified in these environmental protection agencies:

- Most are relatively new, representing consolidation of formerly fragmented activities administered through different functional agencies.

- Most have a legislative mandate to combat pollution through a strong regulatory function.

In effect, many States have only recently made pollution control and environmental enhancement a priority mission of State Government. The result has been two-fold:

1. Pollution control agencies have adopted a regulatory approach to water quality problems in reaction to increasing public demands to clean up the environment.

2. This approach has reflected a need to institutionalize their role and to gain the confidence of legislators, governors, Federal agencies and the public.

Thus they employ two basic policy tools:

1. Regulatory controls, such as establishment of water quality standards, inssuance of discharge permits, permits for construction of waste water treatment facilities, and authority to issue cease-and-desist orders and to recommend civil penalties for pollutors; and

2. Maximization of Federal grants and State funding for municipal waste treatment construction to clean up polluted waters as quickly as possible.

Throughout the brief experience of most of these agencies, they have had little time, funds, staff resources, or a legislative mandate to establish a planning function that meets the rigorous standards envisioned by EPA in the Guidelines. Instead, priority has been placed on building both public confidence and the institutional capability to carry out their statutory responsibilities. As a result, the planning function has received a low priority in most States.

These factors have made many State water quality planning agencies reluctant to undertake river basin water quality management planning or to encourage substate district agencies to become involved in areawide water quality management planning as called for in the Guidelines.

State water quality agencies have several complaints to justify their lack of progress in institutionalizing a State-Areawide planning process. Depending on their particular circumstances, they complain of:

- The lack of adequate Federal planning funds under Section '3c' of P.L. 660 to support required river basin and areawide water quality management planning;

- The lack of flexibility in the Guidelines to allow for the establishment of a planning process to fit the needs of the State in terms of legal authority, water pollution problems, existing capabilities, and on-going planning efforts;

- The failure of the Guidelines to clearly distinguish between the requirements for river basin and areawide water quality management planning;

- The volume and technical quality of EPA-required in-stream data, which some States assert is not currently available;

- The "arbitrary and unrealistic" time schedules for completion of fully developed river basin and areawide plans;

- The inability of areawide planning agencies, particularly those serving nonmetropolitan areas, to develop areawide plans which meet the Guidelines' specifications.

Some of these complaints may well be legitimate, others provide an excuse for bureaucratice inaction. During field interviews the areawide agencies blamed State and Federal agencies; the States blamed the "Feds" and the areawide agencies, and so on in a pattern of diffused responsibility.

A major problem inhibiting the States' efforts to institute water quality management planning concerns the unfamiliarity of State water quality agencies with the concepts and purposes of management planning. This results in a corresponding failure to appreciate its long-range value. The field survey clearly indicated that many officials responsible for water quality management planning fail to appreciate the need for:

- A dual planning function for river basin and areawide water quality management planning;

- The necessary planning linkages between water quality management planning and other related functional planning activities (such as water resource planning, often carried out by a different State agency);

- Relating water quality management planning to comprehensive State and areawide planning and development activities; and

- A management planning process to assure maximum public benefit through the efficient and effective utilization of scarce resources.

Nevertheless, through incentives such as water quality management planning grants ('3c' grants) from EPA, and through the threat of losing eligibility for Federal construction grants under Section 8, the States have slowly moved to comply with EPA's planning requirements.

Differing State Roles

Two basic but different strategies for meeting the requirements for water quality management planning at the State and areawide levels appear to be emerging:

1. A strong role for State water quality agencies in developing River Basin and areawide Water Quality Management Plans;

2. A strong role for substate areawide planning organizations in the development of River Basin and areawide Water Quality Management Plans.

By contrast, the EPA Guidelines clearly envision the establishment of a "balanced" State-areawide approach with clearly defined roles for State agencies concerned with water resource management and for substate areawide planning organizations, with coordinative mechanisms linking water quality management planning with other State and areawide planning and development activities. Just as clear, however, is the failure to date of many States to put into effect a balanced approach and, in many instances, to even conceptually grasp its necessity.

A Strong State Role. The States perceive certain advantages in the strategy they employ to accomplish EPA's planning requirements. The strategy selected usually reflects existing planning capabilities within the State. Where a strong State role is stressed, it is usually regarded as the most expedient approach to meeting EPA's requirements, maintaining continued eligibility of communities for EPA construction grants, and avoiding complex problems of State-areawide planning coordination. Such an approach does not tax the limited capabilities and funds of nonmetropolitan planning agencies and is most likely to be used where State water quality agencies have established some planning capability, and substate agencies are still new and have relatively weak planning programs.

However, the survey revealed that foreclosure of areawide planning agencies from full participation in the planning process has certain disadvantages. In effect, a key link in the intergovernmental management system envisioned by the Guidelines is left out. As a result, the necessary coordination of water quality planning with **comprehensive development planning** at the areawide level is not likely to be achieved. In addition, coordination of water quality planning with related areawide **functional planning** for water and sewer facilities supported by HUD and FHA is much less likely to be accomplished.

Finally, water pollution problems prevalent in nonmetropolitan areas such as soil erosion, agricultural run-offs, irrigation, mine drainage, septic tank drainage, animal wastes and natural weathering, are not likely to receive adequate attention in the planning process.

A Strong Role for Substate Agencies. On the other hand, the survey found indications that some States do accord their substate district agencies a major role in water quality management planning. This approach usually occurs in States where a strong district program has been in operation for some time.

This approach also has its drawbacks, however. The major disadvantage concerns the likelihood that the State water quality agency will tend to play a passive role in the planning process. If the State

encourages its areawide planning agencies to set their own priorities and determine cost-effectiveness in a planning vacuum, implementation strategies and allocation decisions will be focused separately on each areawide planning jurisdiction.

Thus the States need to take an active role in influencing priorities by examining alternatives for each river basin, and establishing a management system that provides a framework for rational allocation of their resources among the several river basins. This can only be accomplished through an active State role in both river basin and areawide planning.

The survey also found that this approach is likely to result in the continued reliance of the States on their regulatory powers in water quality management rather than developing a strong planning function. While this strategy may result in pollution abatement, it provides no assurance of cost-effectiveness, which is the prime concern of management planning.

Finally, the survey found that a passive State role in the water quality planning process further inhibits the establishment of the coordinative mechanisms necessary to link water quality management planning with other State planning and policies in such areas as land-use and economic development, health (water supply), and the development and conservation of natural resources.

Interim Planning

It should be emphasized that these approaches are those which the States can be expected to utilize in meeting the Guidelines' requirements for fully-developed River Basin and areawide Water Quality Management Plans. In some States these approaches are now being applied in initial efforts toward meeting EPA's requirements for fully-developed plans. Other states have made little progress in establishing a planning process to comply with the fully-developed planning requirements by the July 1, 1973 deadline.

At present, the States are complying with EPA's planning requirements by developing interim plans (provided for in the Guidelines) in line with supplemental guidelines contained in an EPA Memorandum dated September 20, 1971. This joint EPA-HUD supplemental communication stresses the need for flexibility, particularly for nonmetropolitan areas, in meeting the unified planning requirements through interim plans.

The field survey revealed that the States are also using diverse approaches to interim planning. Some States are relying on interim **basin** plans to maintain eligibility of their communities to receive construction grants under Section 8. These interim basin plans are usually geared to previous or on-going State planning efforts such as "pollution investigation surveys" and "water quality implementation plans," which consist of a statewide compilation of existing discharge permits, water quality determinations and schedules for construction of new facilities.

Other States are relying on interim **areawide** plans, which often consist of merely defining a sub-areawide planning jurisdiction for the applicant community and its environs based on a "logical service area" concept. These interim plans usually include basic population and demographic data and projections, available in-stream water quality data, which is often extremely sketchy and incomplete, and preliminary engineering reports prepared by a registered professional engineer.

Both approaches to interim planning are based on the States' regulatory powers and are often developed for the primary purpose of maintaining eligibility for Section 8 construction grants. Neither approach reflects a management planning process as envisioned by the Guidelines, but relies heavily on "grantsmanship" and State enforcement powers.

In some areas, however, water quality planning grants under Section '3c' have been awarded to both State and areawide agencies in an attempt to institute a dual State-areawide planning process. These grants are usually awarded after direct negotiation between the applicant agency and the EPA Regional Office. Since, in most instances, the negotiations for each planning grant have not been timed to coincide, State and areawide water quality planning agencies have no clear mandate for coordinating on-going areawide water quality planning with river basin planning conducted at the State level.

In other words, the mere establishment of a dual planning function at the State and areawide levels may result in serious conflicts between State river basin planning and areawide planning if the planning tasks undertaken at both levels are not closely coordinated within an overall policy framework of broad water quality goals and specific planning objectives to be accomplished at each level.

STATE A-95 CLEARINGHOUSES

In all three States surveyed, State Clearinghouses are functioning pursuant to OMB Circular A-95. The survey found that these State Clearinghouses are using the Project Notification and Review System (PNRS) called for in Circular A-95 to improve communication among agencies whose missions directly relate to water quality management. All of these States had established procedures under PNRS to notify the appropriate State agencies of applications for Federal grants for water/sewer, and waste treatment planning and construction.

State Clearinghouses are attempting to coordinate functional planning for water/sewer and treatment facilities with comprehensive planning through the PNRS system. For instance, State water quality agencies are usually notified when a HUD '701' comprehensive planning grant to an areawide agency will be used to develop a functional water/sewer planning element. Usually, however, State Clearinghouse personnel are responsible for analyzing these functional-comprehensive planning linkages. For example, one State Clearinghouse was attempting to assure, through PNRS, that FHA water and sewer planning would be coordinated with areawide or local land-use planning.

In general, the survey found these agencies particularly active in attempting to coordinate Federal water/sewer-water quality planning and projects, either through the Clearinghouse function or through their role as the official State Comprehensive Planning Office. Some of the techniques that have been devised include:

- The preparation by one State of a planning manual for water quality management which includes detailed step-by-step procedures for areawide water/sewer functional planning and areawide water quality management planning;

- An attempt by one State Planning Office to define a stronger role for nonmetropolitan areawide planning agencies in the water quality management planning process by means of a specific work element in a HUD-funded Demonstration District program;

- The development, by one State Planning Office in conjunction with the State water quality agency, of a set of guidelines to help local communities determine when regionalization of waste water treatment facilities is feasible; and the review of local project grant applications and interim basin plans through PNRS to determine if the criteria developed in these guidelines have been followed;

- The formation of a committee, composed of personnel of State agencies whose missions relate to water quality, to coordinate river basin planning efforts among State agencies;

- The organization of a river basin planning advisory committee composed of directors of all areawide planning agencies within the State to provide inputs into river basin planning being conducted by the State.

In addition to these formal procedures, the survey found numerous examples of more informal coordination efforts being employed by State Clearinghouse personnel. Since the State Planning Offices are usually responsible for administration of HUD '701' grants to nonmetropolitan areawide planning agencies, Clearinghouse personnel often provide liaison between these areawide agencies and State water quality agencies. In some States, Clearinghouse agencies are taking the lead in providing technical assistance and planning guidance to nonmetropolitan planning agencies concerning linkages needed to coordinate HUD or FHA supported water/sewer planning with EPA's water quality planning requirements.

In another instance, the formal PNRS procedures for water/sewer-water water quality projects are being augmented by informal communications between personnel of the State Clearinghouse and the State water quality agency. In the same State, the State Clearinghouse is double-checking all applications for EPA Section 8 construction grants to determine if the State water quality agency has reviewed them for conformity with interim river basin plans. If any conflicts are noted, the planning section of the State water quality agency is alerted. In effect, the State Clearinghouse is attempting to establish communication linkages between the subdivisions within the State water quality agency.

Environmental Inputs

The survey found that State Clearinghouse agencies are seriously involved in attempts to anticipate the long-range, secondary or indirect effects of development projects on comprehensive planning, State and Federal policies, and on qualitative considerations of community and economic development. These effects of current plans and projects have particular significance with respect to water/sewer and waste treatment planning.

The most convenient procedure available to State Clearinghouses for examining these secondary effects is through the provision of Circular A-95 calling for State and Regional Clearinghouses to secure the required State and local inputs to support the preparation of environmental impact statements required by Section 102 of the National Environmental Policy Act. State Clearinghouses

often take the initiative in requiring the project applicant and the appropriate State agencies to prepare an environmental assessment of proposed water/sewer and waste treatment projects. These environmental assessments are then reviewed by the State Clearinghouse and, if appropriate, additional comments on their long-range and secondary effects are prepared.

Constraints to the Effective Administration of "A-95"

The survey found that personnel of State Comprehensive Planning Offices are more knowledgeable of the roles, relationships and planning linkages necessary to implement a water quality management planning process than personnel of most other agencies involved in water quality activities, including, in many instances, Federal agency representatives.

Yet several constraints were identified in some States which inhibit the effective use of the A-95 process. With specific reference to problems of coordinating water quality management planning, one State Clearinghouse was attempting to strengthen the role of Regional Clearinghouses in the PNRS process. However, since in this State, the State water quality agency had not involved areawide planning agencies in developing water quality management plans, the State Clearinghouse felt the regions could not perform an adequate review of water-related projects in their area for conformity with the applicable water quality management plans.

Another problem is the reliance of State Clearinghouse personnel on the adequacy of the A-95 review conducted by other "interested" State agencies, on which they depend for a thorough analysis of proposed projects. However, they have no direct means of assuring that these agencies consider all the project's ramifications. For instance, personnel of one State Clearinghouse are particularly concerned over what they view as the indifference expressed by the State water quality agency concerning grant applications for construction of water systems. Although all such applications are routed to the water quality agency for review, often no interest is expressed unless the capacities of the existing collection or treatment systems are involved. As a result, Clearinghouse personnel often feel that adequate consideration is not given to the long-range or secondary effects of the proposed water system.

Other problems identified which tend to inhibit the general effectiveness of A-95 include:

1. A severe shortage of funds and staff needed to effectively follow through on PNRS procedures to assure appropriate action is taken. All State Clearinghouses strongly advocated that Federal grants which support State comprehensive planning allow the administration of the A-95 function to be included as an eligible cost reimbursable with Federal funds.

2. In some States, Clearinghouse personnel feel that there are no statewide plans or policies to provide a coordinative framework within which all local project applications can be evaluated. As a result, they feel that the Clearinghouse process cannot be used to influence priorities and implement development objectives. This is particularly true regarding the assessment of secondary, indirect or long-range effects of plans and projects.

3. Clearinghouse personnel in States that have begun to formulate statewide policies for balanced growth and development complain of the lack of statutory authority to

influence Federal agency decisions concerning funding of local projects. They assert that there have been few instances where Federal agencies have held up project grants to local applicants pending resolution of problems identified through the review and comment procedure.

In summary, a hierarchy of problems associated with the effective administration of the Clearinghouse process was identified. In some States, no plans or policies for evaluation of projects exist; in other States where they may have been developed, there is no legal or political authority to apply the planning criteria; and in States where adequate criteria and some leverage are available, funds and staff to administer the Clearinghouse process adequately are insufficient.

IV. NONMETROPOLITAN AREAWIDE PLANNING

INTRODUCTION

This chapter is designed to portray the institutional setting in which planning related to water quality management occurs. Evolution of multijurisdictional substate organizations with broad or narrow functional purposes in response to Federal and State initiatives is traced in terms of principal Federal programs involved. Capabilities of district organizations, their varying relationships with other agencies and constraints on their functioning, stemming from their mixed heritage, are discussed in relation to the objectives of EPA's planning requirements.

Background observations are related to specific findings of the survey as pertinent points arise. Following are conclusions, emphasizing the role of OMB Circular A-95 in improving the intergovernmental process outlined in the chapter.

EVOLUTION

Over the past decade, comprehensive planning and development activities in nonmetropolitan areas have increasingly become the responsibility of various types of multijurisdictional substate development districts or similar organizations.

Although the creation of substate districts has, for the most part, been in response to specific Federal programs calling for areawide planning, the organization of multicounty districts had been initiated in a few States such as Georgia and Kentucky several years before the Federal government began to promote their establishment.

By the mid 1960's, several Federal programs called for intergovernmental efforts supported by multijurisdictional areawide planning to solve the pervasive economic and social problems afflicting many communities throughout nonmetropolitan America.

Beginning with the passage of the Appalachian Regional Development program in 1965, Congress endorsed this concept by calling for the establishment of multicounty Local Development Districts (LDDs) to assist the Appalachian States and the Appalachian Regional Commission in planning a comprehensive development program for the region.

The Public Works and Economic Development Act of 1965 provides for the establishment of multicounty Economic Development Districts (EDDs) to perform areawide economic development planning in certain depressed nonmetropolitan areas. By 1966, the Office of Economic Opportunity had also begun to encourage the formation of multicounty community action agencies to plan and administer various components of rural community action programs.

The Department of Agriculture also began promoting multijurisdictional districts in the 1960's through the support of Resource Conservation and Development Project areas. In addition, several States began to administer their agricultural extension service programs on a multicounty "extension district" basis.

In 1968, Congress took another major step toward advancing the district concept by amending Section 701 of the Housing Act of 1954 to provide comprehensive planning assistance for nonmetropolitan district agencies. These amendments also called for the Department of Agriculture to provide technical assistance in establishing these districts and to support their planning.

In addition to these multipurpose planning and development programs, Congress has authorized the formulation of single-purpose or functional areawide planning agencies in nonmetropolitan areas such as areawide comprehensive health planning agencies and regional law enforcement planning councils.

The evolution of areawide planning and development agencies in nonmetropolitan areas was influenced by several factors. Initially, districts were organized in economically declining rural areas to provide for increased cooperation and for merging of financial and technical resources of hard-pressed local governments to promote economic development.

The States and the Federal government soon realized the potential of development districts to undertake the planning of development activities that could only be successful if applied on a larger areawide or regional scale. Finally, the multijurisdictional district agency has been recognized as a potential key governmental mechanism to solve a growing array of problems-such as environmental pollution-which transcend the boundaries of any single jurisdiction.

Since 1965, nine Federal programs affecting nonmetropolitan areas and calling for an areawide planning function have been put into operation. Eight have sponsored the formation of multijurisdictional planning agencies to perform areawide planning. At least three have sponsored **comprehensive** areawide planning organizations-LDD's, EDD's and HUD's nonmetropolitan districts (NMDs). The other Federally sponsored multijurisdictional planning organizations operating in nonmetropolitan areas administer special-purpose planning programs with more narrow objectives such as health care, law enforcement and resource conservation.

The proliferation of these Federally supported districts-often overlapping many special-purpose districts used by State agencies to administer certain programs-created an urgent need for a single set of areawide planning jurisdictional boundaries. In the late 60's, the Federal government began to recognize the need to establish a uniform system of substate districts with consistent geographic boundaries to plan and manage both Federal and State programs requiring areawide consideration. Bureau of Budget Circulars A-80 (in 1967) and A-95 (in 1969) require Federal agencies, whenever possible, to use State-designated planning and development districts in administering programs with areawide planning requirements. This Federal action has encouraged the official designation of statewide systems of substate districts in over 40 States as of mid-1972.

Each Federal program providing basic support for nonmetropolitan districts has its own requirements for organizational structure, planning procedures, funding arrangements and citizen participation. In addition, the States with a system of substate districts usually have their own requirements for district planning and development activities, set forth in legislative acts, executive orders, or regulations and guidelines issued by the State agency responsible for managing the State's district program. In some States, district organizations have been established under interlocal cooperation statutes. In these instances, the participating local governments determine the functions of the district agency.

COMPREHENSIVE AND FUNCTIONAL PLANNING

The three State survey indicated that nonmetropolitan planning and development organizations are not yet actively involved in the water quality management planning process. Of the 20 such agencies currently operating in the States surveyed, only two are currently funded with '3c' planning grants from EPA. In one instance, the grant is for the preparation of a Metropolitan Water Quality Management Plan, where one SMSA fringe county falls within the planning jurisdiction of a nonmetropolitan planning agency. There is little doubt that this pattern of '3c' funding exists nationally, given the limited funds available and the current emphasis on metropolitan water quality planning.

However, many nonmetropolitan agencies are engaged in comprehensive and functional planning activities which directly relate to water quality management. The field survey concentrated on four aspects of current planning efforts in nonmetropolitan areas to indicate the problems and potentials of involving them in the formulation of fully-developed areawide Water Quality Management Plans:

1. Comprehensive planning activities currently being undertaken by nonmetropolitan areawide planning and development organizations.

2. The current status of these agencies in meeting HUD's Areawide Planning Certification Requirements.

3. Their involvement in related functional planning such as water/sewer and natural resources planning.

4. Their role in coordinating Federal and State planning and development activities carried out within their planning jurisdiction.

In most States, State policy has been directed toward creating district organizations to serve as the single areawide agency to administer Federal and State multijurisdictional planning and development programs. As a result, many of these organizations administer several comprehensive and functional planning programs, funded in part by Federal planning grants.

Areawide Comprehensive Planning

Planning grants under EDA's Economic Development District (EDD) program and HUD's '701' Comprehensive Planning Assistance Program to nonmetropolitan districts (NMDs) are the most common in nonmetropolitan areas.* They support comprehensive planning and are used primarily to employ professional planning staffs and consultants to accomplish the planning required under each program.

Most well-established EDDs and NMDs have been able to receive and/or coordinate additional functional planning grants through the staff capability "bought" with their basic EDA or HUD planning grants.

*In the Appalachian Region, nonmetropolitan planning is also supported by planning grants from the Appalachian Regional Commission to support the activities of Local Development Districts.

Economic Development Administration Under the Economic District Development Program, areawide planning and development districts are organized with a governing board composed of local elected officials and representatives of the area's major economic interests including the unemployed, minorities, business, labor and civic groups. To be designated an EDD, the district organization must prepare an Overall Economic Development Program (OEDP) approved by the State and EDA.

A district's initial OEDP, once approved by EDA, must be updated annually, listing priority projects to be undertaken to help accomplish the goals and objectives set forth. Subsequent EDA grants and loans to the area for public facilities must be consistent with the OEDP and have a demonstrable effect on reducing unemployment or otherwise alleviating poverty in the district.

Department of Housing and Urban Development The planning requirements for nonmetropolitan areawide planning under the HUD '701' Comprehensive Planning Assistance Program are more complex. Initially, a HUD NMD must satisfactorily complete an Overall Program Design (OPD) and an Annual Work Program.

The OPD consists of a three-to-five-year overall program of work to assure that work elements relate to overall planning objectives, that staff, time, and financial resources are effectively programmed, and that planning tasks are undertaken in logical sequence.

The Annual Work Program includes a schedule of specific planning activities to be undertaken during the current funding period.

Areawide Certification

In order to continue to receive '701' Comprehensive Planning Assistance grants and in order for communities within the Areawide Planning Jurisdiction to be eligible for HUD water and sewer facilities grants, areawide planning agencies must make satisfactory progress toward meeting HUD Certification or Areawide Planning Requirements.

The satisfactory accomplishment of HUD's Areawide Planning Requirements is a key feature of the unification of EPA and HUD planning requirements. In an attempt to achieve coordination of areawide **water quality management** planning with areawide **comprehensive and functional** planning funded under the HUD '701' program, the Guidelines require that projects funded by HUD for water and sewer facilities and by EPA for waste treatment facilities conform to the same requirements for both comprehensive and functional planning. To implement unification, the Guidelines call for Areawide Planning Organizations to meet HUD's Areawide Planning Requirements prior to the award of an EPA or HUD grant for waste water collection or treatment facilities. If fully implemented, the HUD-EPA unified Guidelines will require that no facilities grants be awarded by either agency until an APJ has been defined and an APO has been designated and fully certified by HUD.

HUD determines that planning agencies have met its areawide planning requirements by certifying their planning accomplishments and competence at three levels. Level I concerns certification as the official Areawide Planning Organization, (APO); Level II indicates that the areawide agency has met HUD's comprehensive planning requirements; and Level III indicates that the agency has received HUD certification for areawide functional waste water collection and disposal systems planning.

The Guidelines envision that in awarding Certification III, HUD and EPA will determine if the APO has met both EPA's water quality management planning requirements and HUD's requirements for functional water/sewer planning and programming.

The current status of HUD Certification of nonmetropolitan areawide planning organizations varies greatly from district to district and State to State. The survey indicated that, while a few nonmetropolitan districts have completed the necessary planning tasks to receive HUD Certifications I through III, others have not as yet received Certification I. In addition, nonmetropolitan areawide planning agencies in several States are not involved in the HUD '701' Comprehensive Planning Assistance Program and, as a result, do not expect to receive HUD Certification in the near future.

Although the administration of HUD's areawide planning requirements varies somewhat from State to State, HUD generally requires the following planning tasks be accomplished to receive Certification II and III:

- Preparation of a comprehensive areawide land-use element;
- The establishment of areawide goals and objectives;
- The compilation of basic population, demographic and economic data and projections;
- The completion of a preliminary water/sewer planning element.

The capability of existing NMDs to complete the necessary planning tasks for HUD Certification varies considerably depending on:

1. **The level of HUD funding**. The larger the '701' grant, the more staff the district can employ to undertake HUD's planning requirements.

2. **The total level of all Federal planning assistance supporting comprehensive and functional planning administered by the district agency**. In districts that receive planning funds from both EDA and HUD, more staff resources are available to undertake the required planning.

   However, the timing of the two planning grant programs is important here. For instance, if a new nonmetropolitan planning organization received concurrent planning grants from HUD and EDA, the district would be hard-pressed to meet their planning requirements simultaneously since the requirements of both agencies differ significantly. The field survey indicated that the most successful districts, in terms of planning accomplished, first received an EDA grant and completed the preparation of an OEDP. Subsequently, these districts received HUD '701' planning grants and were able to combine these funds with continuing planning funds from EDA to satisfy HUD's planning requirements.

3. **The physical, demographic and political characteristics of the planning area.** In the most rural or sparsely populated planning areas, district boards are sometimes reluctant to undertake some HUD-required planning, which some feel is geared more to the problems

of urban or rapidly growing areas. This is particularly true concerning HUD's requirements for an areawide Land-Use Element, which is often resisted by some rural interests. Even where there is no overt opposition to land-use planning and zoning, local officials in sparsely settled rural areas are often reluctant to commit the necessary funds and staff resources to the Land-Use Element which they feel is not an urgent planning priority.

4. **The existing problems and planning priorities of the nonmetropolitan planning agency.** In many nonmetropolitan areas, the district planning agency was created primarily to promote economic development. As a result, they may be reluctant to meet HUD's Areawide Planning Requirements, especially if they are not receiving HUD '701' planning assistance.

5. **The total staff and technical planning assistance resources available to the district organization from State and other Federal agencies involved in related planning and development.** In some nonmetropolitan areas, the district organizations receive the active support of Rural Development Committees organized under the auspices of USDA. Other districts which have been successful in gaining the active support of Extension Service agents and Soil Conservation Service County Agents are in a much better position to undertake HUD planning requirements. In some nonmetropolitan areas, USDA has supported establishment of multicounty Resource Conservation and Development project areas coterminous with nonmetropolitan districts. These RC&D's represent a potential source of additional staff assistance which, through proper coordination, can support the planning objectives of the district agency.

   Finally, in some States, a program of State technical staff assistance is available to areawide organizations which can be used to support district planning objectives.

Related Functional Planning

The survey revealed that nonmetropolitan district planning agencies are currently engaged in several kinds of functional planning directly related to water quality management.

1. Areawide land-use planning, usually undertaken with Comprehensive Planning Assistance Grants from HUD;

2. Areawide water and sewer facilities planning supported with HUD '701' planning funds and/or planning grants from the Farmers Home Administration;

3. Economic and industrial development planning, usually directly related to the OEDP planning process and public facility grants and loans from EDA.

The relationship of areawide land-use planning to water quality management is obvious and direct. The Guidelines call for areawide water quality management plans to provide the main input on land use, which is to be integrated into river basin plans. All nonmetropolitan districts receiving HUD '701' funds are required to prepare a Land-Use Element. While progress in this area varies greatly from district to district, most HUD-supported districts will usually complete at least a preliminary Land-Use Element within a year after receiving their initial HUD planning grant.

The majority of the districts contacted in the survey had recently completed, or were in the process of completing, an areawide water and sewer plan. The remainder were anticipating undertaking areawide water/sewer planning as soon as planning funds became available from HUD or FHA.

Economic and industrial development planning in nonmetropolitan areas invariably relates, directly or indirectly, to water quality management planning. In EDDs, a large percentage of project activity is centered around public facilities grants and loans from EDA to attract new industry. These projects often involve construction of water, sewer and waste treatment facilities with Federal grants from EDA, FHA, HUD and EPA. Even when EDA projects do not directly involve these types of facilities, the planning associated with economic or industrial development projects will usually need to address water quality considerations for either the immediate or long-range future.

AREAWIDE PLANNING COORDINATION

It is now the policy of most States, that, wherever possible, all Federal and State supported multijurisdictional planning and development programs should be administered directly by, or coordinated under the organizational umbrella of, officially designated substate planning and development organizations. Nevertheless, the extent to which areawide programs currently conform to this policy varies considerably from State to State. In some cases, the geographic boundaries of multijurisdictional programs are still not coextensive with substate district boundaries. In other instances, special functional planning structures have evolved independently from the official substate district organization.

Those districts responsible for and/or actually administering functional planning programs are usually in a position to play a stronger role in establishing the arrangements necessary to effectively relate comprehensive and functional planning. In some States a wide variety of functional planning programs, supported by Federal agencies, are administered through nonmetropolitan districts. These include planning grants for law enforcement (LEAA), transportation and highway safety (DOT), comprehensive health and human resources (HEW), historic preservation (Interior), manpower (Labor), and planning supported by the Council on Aging.

In addition, in some areas nonmetropolitan district agencies are working closely with Community Action Agency staffs supported by OEO. In some States, OEO is directly funding nonmetropolitan district agencies to administer Community Action Program components through special demonstration programs.

In nonmetropolitan areas served by areawide planning organizations, OMB Circular A-95 is the key mechanism for strengthening the institutional arrangements necessary to manage comprehensive and functional planning activities on an areawide and statewide basis. To bolster the role of areawide planning and development agencies in coordinating Federally supported planning and development activities, most States which have officially delineated substate districts and recognized district organizations have designated them as Metropolitan or Regional (Nonmetropolitan) Clearinghouses to review and comment on applications for Federal assistance.

This Clearinghouse function is probably the single most important management tool available to nonmetropolitan planning and development organizations. It has bestowed on nonmetropolitan districts the necessary legitimacy to take a leadership role in comprehensive planning and development.

The field survey indicated that most planning officials in nonmetropolitan agencies understand the purpose of the Clearinghouse function and recognize its potential for improved management of planning and development efforts. The Clearinghouse role has been welcomed enthusiastically by district officials who recognize its potential as a management tool for accomplishing their mission, and a source of legitimacy advancing district acceptance as the "lead" agency in areawide comprehensive planning and development.

The effectiveness of A-95 at the areawide level is directly related to the progress the district has made in its overall planning and development program. The older, more mature districts, with a significant portion of their initial areawide planning efforts accomplished, have been able to effectively use the Clearinghouse function to help implement these plans. In the newer districts, the review and comment procedure is used primarily to establish the necessary communication linkages, to provide a mechanism for identifying obvious waste and duplication of efforts, and to strengthen the district's role and institutional capability to perform areawide comprehensive planning and coordination.

CONCLUSIONS

In evaluating the efforts of nonmetropolitan planning and development organizations, the most outstanding feature is the vast diversity from State to State and district to district. These differences extend to organizational accomplishments, funding levels, staff capabilities, and planning progress. For instance, in some areas district organizations are well established, funded and staffed, and have completed a significant portion of their basic planning tasks. In other areas, while a substate multicounty district may have been delineated, no planning organization has yet been formed, often due to political resistance on the part of local officials or conflicts over district boundaries. Often, this uneven pattern of organizational progress can be found within the same State.

Even in States where all nonmetropolitan districts have been organized, staffing capabilities, funding levels and planning accomplishments often vary considerably. The survey found district organizations with staffs ranging in size from one to ten professionals. As would be expected, those with the larger staffs were receiving more Federal funds and had completed more of their Federally required planning.

Some similar characteristics of nonmetropolitan substate district agencies can be identified however. In most States, they have a sound legal basis under existing interlocal cooperation statutes or by specific act of the State Legislature. Almost all districts are organized through the voluntary participation of local governments. Few, if any, State laws grant district organizations the powers to implement their plans. The districts must persuade their participating local governments to officially adopt district plans.

District governing boards are usually representative bodies, composed of a majority of local elected officials with special provisions to assure citizen participation and representation of major economic and social interests. In some States, nonmetropolitan planning organizations have been organized as Councils of Governments, whose governing boards are composed exclusively of elected local officials. In these instances, special arrangements have been designed to encourage citizen participation.

District staffs are usually not large, averaging three or four professionals. Annual budgets range from around $40,000 to over $200,000. A small percentage of these funds comes from local contributions, usually not more than 35 per cent of a district's annual budget. More than 20 States now support their substate district organizations with regular grants appropriated by the State Legislature. However, the level of State support is usually quite low. In two of the States surveyed, district organizations received only around $5,000 annually in State support in the form of a "block" grant for general planning and development purposes.

Most nonmetropolitan district organizations have been designated A-95 Regional Clearinghouses and practically all are authorized to undertake comprehensive planning and to coordinate functional planning with areawide comprehensive planning.

Functional planning in nonmetropolitan areas can be generally classified into three categories:

1. Physical planning, including land-use, natural resources, transportation,

2. Economic development planning, including industrial development, manpower training and provision of public facilities.

3. Human resource planning, including health, education, housing and community services.

The overlap of these functional planning components is obvious. It is in this area of planning coordination that nonmetropolitan districts have made the best use of their Clearinghouse role.

A prime tool for coordination of water quality management planning in nonmetropolitan areas is the A-95 Clearinghouse function. Although the administration of the A-95 review and comment function is criticized by some as a pro forma paper-shuffling exercise, the survey indicated that district planning officials understand its potential and are eager to employ the Clearinghouse function to further the planned development of their areas. As nonmetropolitan agencies become accepted, complete their basic planning tasks, and receive more State and Federal funding support, they will be able to use their Clearinghouse role to more effectively coordinate all types of functional planning and development activities, including plans and projects which relate to water quality management.

V. DISCUSSION OF FINDINGS AND CONCLUSIONS

Water quality management planning will have a significant impact on nonmetropolitan areawide planning and development activities. Conversely, the planning and development activities being undertaken by nonmetropolitan district organizations will have an important influence on water quality management. These activities include land-use, natural resources, housing, water/sewer and economic development planning.

IMPEDIMENTS

A major role for nonmetropolitan substate district agencies in the water quality planning process should result in improved areawide planning coordination, enable the States to improve the quality of river basin planning efforts, and facilitate implementation of water quality management plans at the areawide level. However, the field survey identified some major impediments to be overcome before a realistic management planning process can be put into effect in nonmetropolitan areas.

Federal-Level Impediments

One potential deterrent to coordination of water quality management planning is the lack of a comprehensive tie-in of all four federal agencies' grant programs for planning and construction of water and sewer systems. FHA and EDA which have a major role in funding water/sewer planning and projects in nonmetropolitan areas, have not entered into an agreement with HUD and EPA to unify planning requirements for Federally supported waste water collection and treatment systems projects. If a coordinated approach to these Federal water/sewer and water quality planning and construction programs is not established at all intergovernmental levels, the prospects for an effective water quality management planning process in nonmetropolitan areas will be seriously diminished.

However, the survey showed that even a limited attempt at unification of requirements of two Federal agencies at the Washington level–the HUD-EPA joint agreement–has not taken effect in many areas. Confusion over the relationship between HUD-required areawide functional water/sewer planning and areawide water quality management planning required by EPA proved the chief problem.

State-Level Impediments

Although the States are using a variety of approaches in attempting to comply with EPA's planning requirements, most State water quality planning agencies are not familiar with the concepts and purposes underlying water quality management planning and do not fully appreciate the need for a management planning process. As a result of past emphasis on their regulatory and enforcement function, these agencies often view EPA's planning requirements as another unnecessary exercise to perform in order for municipalities to remain eligible for Federal facilities grants.

To meet Federal planning requirements in an expeditious manner, some States have pursued a strategy of minimum involvement of areawide agencies in the water quality management planning process. Their rationale seems to be that if fewer agencies and levels of government are involved, less time needs to be spent in establishing coordinative processes and planning linkages, enabling the

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State to devote its limited funds and staff to meeting EPA's planning requirements as quickly as possible.

Illustrative of the thinking behind this approach is the statement in one State's Section 7 Program Plan that " . . . increased interagency coordination is generally equated with a decrease in work accomplished . . . ."

In those few States that contemplate a major role for substate district agencies in the water quality management planning process, expediency in meeting EPA's requirements again appears to be a major influence. This approach is most likely to be followed in States where little or no planning capability exists within the State water quality planning agency, and where substate planning agencies are relatively well established with strong planning programs.

Nonmetropolitan Area Level Impediments

The survey revealed several impediments to full participation of nonmetropolitan substate district agencies in the water quality management planning process.

Local Resistance. Planning officials and staffs of nonmetropolitan planning agencies are for the most part unaware of the need for water quality management planning. It is not enough that water quality management plans are now a Federal requirement for eligibility for EPA and HUD grants. Coping with, and at times circumventing, Federal requirements is a way of life for many nonmetropolitan district staffs.

This antipathy will persist until planning staffs and local officials become aware of the future impact water quality management planning can have on their on-going planning efforts and on the overall missions of their agencies. Incentives, both in the form of **rewards** and penalties, must be clearly presented to encourage their full involvement.

Nascent Institutions. Even if nonmetropolitan district planning agencies fully accepted the need for water quality management planning, many would not now be in a position to meet EPA's **current** requirements for areawide Water Quality Management Plans. An already taxing work load and a shortage of qualified professional staff in many agencies will serve as a major constraint to the development of areawide Water Quality Management Plans in many nonmetropolitan districts.

Even if the staff capability were available, however, most district agencies would not be ready to undertake planning as called for in the Guidelines. Many are still in the process of institutionalizing their role and completing certain basic planning tasks fundamental to the mission of a nonmetropolitan planning and development district agency. Some are still groping with the problem of gaining full cooperation and support from local officials and citizens. Others are still in the process of preparing OEDP's, initial Land-Use Elements, preliminary water/sewer plans, and establishing their A-95 role in areawide planning coordination.

Lack of Planning Grants. The general lack of Federal water quality planning grants ('3c' grants) for nonmetropolitan areas has further diminshed the prospects for motivating nonmetropolitan planning staffs to become involved in the water quality planning process. District officials have adapted their programs and priorities to the realities of Federal categorical grants, which heavily

support both planning and project activity in nonmetropolitan areas. This has resulted in planning priorities being determined, to a large extent, by the availability of Federal planning funds. This phenomenon has engendered an attitude to the effect that functional plans will not be undertaken unless supported by a categorical Federal grant for a specific planning activity.

Weak Communication Linkages. Communication linkages between nonmetropolitan district agencies and Federal and State agencies responsible for water quality management planning have not been well established. This has resulted in considerable confusion on the part of district officials concerning specific requirements for water quality management planning, the respective roles of State and substate district agencies in the planning process, and the relationship between on-going HUD and FHA supported planning and EPA's planning requirements.

Nonmetropolitan district agencies are often caught in the middle of rapidly changing patterns of Federal-State-regional communications. On matters concerning project implementation, district and local officials often deal directly with EPA regional officials. For purposes of water quality management planning, however, State water quality agencies have been delegated a key role. Nevertheless, the field survey indicated that these designated State water quality planning agencies have not taken the initiative to inform district agencies of State policy for implementing EPA's planning requirements and for setting priorities for municipal waste treatment facilities needs. In addition, little effort has been made by State water quality planning agencies to provide technical planning assistance to districts involved in water quality or related planning.

The communications problem is further aggravated when State water quality agencies are engaged in policy disputes with EPA Regional offices over standards, priorities and planning approaches. Where such conflicts exist, the flow of communications concerning policies, technical planning requirements, and intergovernmental relationships is short-circuited. At best, ad hoc patterns of communication often develop which fail to facilitate the intergovernmental coordination necessary to establish a unified management planning system. Often, however, no effective communication linkages are established, resulting in even more confusion.

In short, the impediments identified in the field survey can be classified into two major problem areas.

1. Nonmetropolitan district agencies are not currently active participants in the water quality management planning process as defined in the EPA Guidelines, and State water quality planning agencies are not actively fostering their participation.

2. Administration of Federal programs and planning requirements related to water quality management in nonmetropolitan areas varies significantly across the nation, resulting in a fragmented and often confusing approach to intergovernmental coordination.

INSTITUTIONAL TRENDS

The survey findings also revealed that certain recent institutional trends in the planning and administration of Federal programs will have a significant impact on water quality management planning.

- Regional offices of Federal agencies are playing an increasingly significant role in grant-in-aid program planning and administration.

- The States are assuming increased responsibility in the planning and administration of Federal grant-in-aid programs.

- Substate district planning agencies, now serving nonmetropolitan areas of some 40 States, are rapidly blanketing the nation and are being used increasingly by the States for planning and administration of Federal and State programs and as Regional A-95 Clearinghouses.

CONCLUSIONS

When the impediments to nonmetropolitan water quality management planning are viewed in light of recent trends, several major conclusions can be drawn concerning ways to improve the process:

- The objectives of management planning can best be achieved by designing an overall planning strategy to coordinate water quality planning requirements systematically with other related areawide planning programs on a district-by-district basis.

- State-designated substate district planning agencies constitute a major resource for the accomplishment of such planning on an areawide basis.

- Timetables for the completion of areawide water quality management plans in nonmetropolitan areas would be more effective if scheduled on the basis of a realistic assessment of the institutional capabilities of substate district planning agencies their, overall planning accomplishments and anticipated planning progress.

- State and regional A-95 Clearinghouse agencies can play a key role in accomplishing the intergovernmental and interagency coordination needed for effective water quality management planning.

- Designated State water quality (planning) agencies, in addition to their other duties, are in the best position to serve as a clearinghouse for technical assistance to areawide planning agencies for water quality management planning.

- EPA Regional Offices are the logical focal point for coordination among EPA, HUD, FHA, EDA, the States and their substate district agencies for putting into effect an areawide water quality management planning process in nonmetropolitan areas.

- Nonmetropolitan water quality management planning will proceed slowly at best until funds are made available to support the required effort.

The above conclusions led to the identification of the need to:

Bring State-designated nonmetropolitan substate planning and development districts into active participation with State and Federal agencies in the intergovernmental decision-making process.

2. Design flexible planning guidelines for water quality management planning in nonmetropolitan areas to make maximum use of existing planning institutional capabilities and on-going areawide planning activities.

3. Develop a coordinative approach to water quality management planning throughout the full range of the intergovernmental decision-making process.

4. Promote a better understanding of the purposes and benefits of water quality management planning on the part of other Federal agencies, the States and substate district officials.

5. Provide increased funds for water quality management planning in nonmetropolitan areas.

Substate Districts

The need for a strong role for nonmetropolitan substate district agencies in the water quality management planning process is summarized below:

- Water quality problems in rural areas are not receiving adequate attention through existing water quality management planning undertaken primarily at the State level;

- Planning efforts and priorities at the State level are often geared to the pressing demands and problems of urban areas;

- Nonmetropolitan substate district organizations are evolving as an integral part of the governmental structure in the great majority of States;

- The planning and development activities being undertaken by them will have a significant impact on water quality management;

- Conversely, the water quality management planning process, when fully implemented, has the potential to profoundly influence nonmetropolitan planning and development programs;

- Although the concept of water quality management planning is not well understood, lack of understanding stems in part from the failure of nonmetropolitan district agencies to be involved in the planning process; and

- The most effective method of analyzing nonmetropolitan water quality management problems and linking water quality management planning to other planning and development activities is through the active participation of nonmetropolitan district agencies in the preparation of areawide water quality management plans.

A Flexible Approach

Realistic recommendations for improving water quality management planning in nonmetropolitan areas must be based on a recognition that the current status of nonmetropolitan substate district agencies varies greatly across the country. This uneven progress has resulted in differences in quantity and quality of their completed and on-going areawide planning efforts.

To effectively implement the rigorous, technically oriented planning process required by EPA in its Guidelines for Water Quality Management Planning, flexible approaches and planning requirements need to be devised. Variables which need to be considered include:

- the organizational status of nonmetropolitan district planning agencies;
- the planning capabilities of nonmetropolitan district planning agencies;
- the required content of areawide Water Quality Management Plans for nonmetropolitan areas;
- timetables for meeting water quality management planning requirements in nonmetropolitan areas.

EPA's short-range objectives should be to directly involve nonmetropolitan district agencies in areawide water quality management planning. The strategy should revolve around an incremental approach designed to support the building of their institutional capability. The long-range goal should be the eventual achievement of realistic areawide Water Quality Management Plans for most nonmetropolitan areas.

Improved Intergovernmental Coordination

The need for improved coordination at all levels is closely related to the need for flexible approaches to planning requirements. The survey found that national agreements between Federal agencies do not assure that interagency coordination will be accomplished. The failure to date to implement unification of the HUD-EPA planning requirements illustrates the need for improved communication and coordination at all levels.

Flexibility in Federal requirements is also needed to improve intergovernmental planning coordination. Since the several Federal agencies supporting nonmetropolitan planning have their own areawide organizational and planning requirements, as do many of the States, planning strategies based on flexible requirements geared to the problems and existing institutional capabilities of nonmetropolitan district agencies need to be worked out at the Federal Region and Statewide levels.

Designing a Flexible Approach

The following considerations require examination in designing a flexible approach:

1. The overall mission and related planning and program priorities of the district agency;
2. The institutional capabilities and planning accomplishments of the district organization; and
3. The nature and severity of water quality problems in each nonmetropolitan district.

In assessing the overall mission and related planning and program priorities of nonmetropolitan district agencies, particular emphasis should be placed on the impact their missions may have on certain EPA and HUD organization and planning requirements. The planning priorities of

nonmetropolitan district agencies usually involve economic development projects, manpower training, and planning for the provision of certain basic services, both to serve as economically disadvantaged population and to simulate economic development.

On the other hand, the planning priorities of most existing areawide planning agencies in metropolitan areas reflect physical planning needs related to areawide land-use, housing, transportation and open-space planning.

As a consequence of these differences, some nonmetropolitan agencies, particularly those that are underfunded and understaffed, sometimes find it difficult to accommodate HUD's planning priorities with their development-oriented missions. This problem can have a significant impact on the accomplishment of EPA's areawide water quality management planning requirements in nonmetropolitan areas since EPA now requires areawide planning agencies to meet HUD's organizational and planning requirements.

These problems can be illustrated through analyzing the difference in the objectives of functional water and sewer planning between metropolitan and nonmetropolitan areas. The planning of water, sewerage and treatment facilities is seen as a prime tool **to control and influence growth** in **metropolitan** areas. Consequently, these functional planning efforts must be closely coordinated with land use, transportation and open-space planning.

Conversely, **nonmetropolitan** agencies often view planning for the provisions of water and sewerage facilities as a prime tool to **stimulate growth.** Thus, functional water/sewer planning in nonmetropolitan areas is often tied closely to economic or industrial development planning accomplished through the OEDP process. Detailed land-use planning is not a major priority for these areas, especially those with a sparse and scattered population.

On the other hand, the capacity of planned waste collection and treatment systems is significant in the nonmetropolitan setting. To both stimulate and anticipate future growth, nonmetropolitan sewerage facilities plans often provide for systems with capacities larger than needed to serve the existing population. However, this "over-design" conflicts with EPA's cost-effectiveness planning strategy.

A final solution to these problems cannot be provided for in any framework for evaluating the institutional capabilities of nonmetropolitan district agencies. Nevertheless, they must be taken into account in devising flexible approaches to water quality management planning in nonmetropolitan areas.

VI. RECOMMENDATIONS

The findings and conclusions from the survey form the basis for a recommended approach by which the Environmental Protection Agency can provide the leadership to bring about improved water quality management planning practices in nonmetropolitan areas. Furthermore, the following recommendations are designed to allow for incremental improvements in problem assessment and planning capability.

It is recommended that EPA-OWP, in recognition of the potential of substate district planning and development agencies for institutionalizing the water quality management planning process in nonmetropolitan areas, lend all possible support and encouragement to State actions:

1. *Requiring* **Nonmetropolitan Areawide Water Quality Management Plans** *for all nonmetropolitan areas which are served by a State-designated substate district planning agency.*

2. *Assigning responsibility for the development of* **Nonmetropolitan Areawide Water Quality Management Plans** *to officially designated substate district planning and development agencies unless such action is clearly unwarranted.*

To permit the varying levels of detail necessary to reflect the diversity of problems and institutional capabilities in nonmetropolitan areas, it is recommended that EPA-OWP:

3. *Establish flexible planning requirements for* **Nonmetropolitan Areawide Water Quality Management Plans** *designed to insure realistic consideration of nonmetropolitan areawide water quality problems and maximum utilization of related planning activities.*

To reinforce and otherwise support the role of substate districts in areawide water quality management planning for nonmetropolitan areas, it is recommended that EPA:

4. *Correlate the deadlines for completion of initial* **Nonmetropolitan Areawide Water Quality Management Plans** *with the availability of water quality management planning funds and with implementation schedules established in the water pollution control amendments of 1972.*

5. *Include planning status and performance assessments in interim criteria for facility grant eligibility pending satisfactory completion of each district's* **Nonmetropolitan Areawide Water Quality Management Plan.**

6. *Prepare technical handbooks and other information on nonmetropolitan water quality problems for use by substate planning agencies in developing* **Nonmetropolitan Areawide Water Quality Management Plans.**

7. *Establish a nontechnical information and educational program to build understanding of the purposes of, and the need for, cost-effective water quality planning on the part of local officials.*

8. *Encourage maximum involvement of State A-95 Clearinghouse agencies in all aspects of water quality management planning.*

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And finally, if water quality management planning is to be accomplished in nonmetropolitan areas quickly enough to affect expenditures in the time frame envisioned in the water pollution control amendments of 1972, it will have to be funded on an accelerated basis.

Therefore, it is strongly recommended that:

9. *Every effort be made to stimulate and fund water quality planning grant applications from State-designated substate district planning agencies.*

10. *Federal and State agencies supporting water quality related planning should be encouraged to increase their technical and financial support for such planning, and to coordinate their implementation timetables and planning requirements whenever possible.*

RECOMMENDED ACTIONS

The following actions to implement the above general recommendations were designed to allow for incremental improvements in problem assessment and planning capability as well as for major improvements should more planning funds become available.

Plan Content

To assure that nonmetropolitan areas are covered by areawide water quality management plans and to avoid confusion over required plan coverage, *it is recommended that the current language of the Guidelines calling for areawide "Metropolitan/Regional" plans be changed to specifically require areawide plans for* **Nonmetropolitan** *areas.*

All Nonmetropolitan Areawide Water Quality Management Plans should reflect consideration of certain basic elements. The detail accorded each element should be appropriate to the extent of the area's water quality problems and their relationship to other area plans. The appropriate level of detail should be determined in the design of the overall water quality planning program for the area.

The following elements should be addressed in every Nonmetropolitan Areawide Water Quality Management Plan:

- *A statement of water quality objectives and how they relate to areawide goals and objectives.*

- *A description of the location, type and extent of municipal, industrial and nonpoint sources of water pollution in the area.*

- *A description of existing physical systems for collection, transmission and treatment of waste water.*

- *A description of the water resources within or available to the area.*

- *A land-use inventory which identifies present urban concentrations, major use generators and trends, major land uses in the nonurban areas and their generators, and anticipated changes which would have significant impact on water quality management.*

- *An economic and social analysis of the area which considers the size, economic base and present and anticipated growth rate of the area and its urban places.*

- *A statement of current water quality standards and identification of river reaches where these standards are not currently being met.*

- *Estimates of volume, type and location of future waste inputs which would result from anticipated population, industrial and agricultural growth.*

- *A statement of the strategy selected to achieve water quality objectives for the area based on analyses of water pollution problems, abatement alternatives, cost effectiveness considerations, area priorities and financial and manpower constraints.*

- *A statement of the environmental impact of the alternative selected.*

- *A statement of the extent of public participation in the planning process.*

- *An analysis of the legal, regulatory and jurisdictional factors related to implementation of the areawide management plan.*

- *A description of the procedures to be followed in updating the plan.*

Planning Work Study Design. Whenever a Federal grant is awarded to support areawide water quality management planning, a detailed work study design should be the key mechanism for coordinating interagency and intergovernmental planning efforts. Its preparation should be undertaken as the first phase of the areawide plan and should be considered an eligible planning cost by EPA. The full grant award should be conditioned upon the grantee's preparation, and EPA Regional Office approval, of the work study design within sixty to ninety days after the initial grant agreement has been signed.

The work study design should also develop in detail arrangements for accomplishing each functional component of the plan, including specific provisions for interagency cooperation through data sharing, staffing support and joint funding; and procedures for coordination among the areawide agency, the State water quality planning agency, the State Comprehensive Planning Office, other State agencies, and Federal agencies conducting related programs. It should also spell out in detail how areawide water quality planning efforts will be linked with previous or on-going HUD, FHA or EDA-funded planning involving land use, water needs, or water and sewer facilities. Particular emphasis should be placed on linking the areawide planning efforts with on-going river basin planning conducted at the State level.

Finally, the work study design should identify recognized sources of technical planning capability available to the areawide planning agency such as SCS County Agents, Extension Service personnel, Resource Conservation and Development agencies, and State agency field personnel, and describe arrangements for utilizing these technical resources.

In short, the work study design should establish clear channels of on-going areawide-State-Federal communications that remain functional throughout the period of the planning grant and beyond. In many instances, it may be desirable to employ professional consultants to prepare the work study design, through a subcontract with the applicant areawide planning agency. To avoid any potential problems with interagency conflicts, the consultant should perform the role of neutral arbitrator in resolving problems concerning who does what, when, where and how throughout the period of the planning grant.

Planning Responsibility

To achieve maximum effectiveness, nonmetropolitan substate district agencies must have a direct programmatic role in water quality management planning. This is particularly necessary since pollution control problems in rural areas are often substantially different from urban problems and can best be examined at the planning level closest to the problems, in conformity with the overall strategy set by the State.

It is therefore recommended that State-designated substate district agencies be assigned responsibility for development of **Nonmetropolitan Areawide Water Quality Management Plans** *for their respective areas unless it can be clearly demonstrated that some other agency should be assigned the responsibility.*

Since requirements for comprehensive or coordinative planning and organizational arrangements vary among Federal agencies supporting nonmetropolitan planning, and since several States have their own planning and organizational requirements for substate districts, EPA should adopt a flexible approach to unification of Federal planning requirements by requiring only that nonmetropolitan agencies designated as responsible for water quality management planning be the official substate district organization and the regional Clearinghouse designated pursuant to Circular A-95. Where no district agencies have been designated or organized, this requirement should be waived and the nonmetropolitan areas covered in the appropriate river basin plans.

In nonmetropolitan areas where full scale areawide water quality management planning is supported by a Federal grant, the areawide planning agency also will, in all probability, need to subcontract with consultants, or other agencies with recognized capabilities, for discrete parts of the planning effort. In all cases, however, the district agency should play the key role in the development of the plan through close monitoring of the consultant's progress, and by providing the main inputs on areawide goals and objectives, economic and demographic data and projections, and plan relationships. The details for these arrangements should be spelled out in the work study design.

Planning Coverage

It is recommended that EPA-OWP modify agency guidelines and directives relating to water quality management planning to require that a "Nonmetropolitan Areawide Water Quality Management Plan" be prepared for all areas outside SMSA boundaries served by a State designated substate district planning agency. An exception would be a small nonmetropolitan area included in the Metropolitan Water Quality Management Plan for an adjacent SMSA. Those areas not presently served by a substate district agency should be included in appropriate detail in river basin plans covering the area.

The geographic scope of sub-area water quality management plans should be worked out on a district-by-district basis instead of relying solely on HUD designated APJs. The survey found that APJs and substate districts are often not coterminous. However, if areawide water quality management planning proceeds on the basis of officially delineated substate districts, where district organizations have been established, the geographic scale and organizational arrangements for planning sub-areas can be worked out for each district.

This procedure should allow for increased flexibility over the current approach which is geared to HUD's planning certification procedures. The district agency would have prime responsibility for establishing water quality management systems within the region. Initially, it would establish the necessary organizational arrangements for developing plans for geographic sub-areas within the district. For example, in some districts more detailed plans may be necessary for the larger cities and towns of the district, while other planning sub-areas may need to be defined for rural areas where nonpoint source problems are prevalent. In other districts, a unified plan may be required for the entire area to include both rural and urban components.

In some districts, an agency such as a county planning commission or water and sewer authority may be delegated responsibility for preparation of a water quality management plan for a "Problem Analysis Sub-Area". In all cases, however, the planning activity should be conducted under the organizational umbrella of the substate district agency. After a management planning process has been implemented for the entire area, the district agency's prime responsibility would involve coordination of the area's individual water quality management systems into a coordinated areawide management system.

These determinations should be reached through consultation and negotiation among the district agency, the State water quality planning agency and the State Planning Office, and spelled out in the planning work study design phase of the plan's preparation. The EPA Regional Office should approve the planning arrangements for each district by reviewing the work study design prior to authorizing further planning expenditures under the district's Federal water quality management planning grant.

State Agency Role

It is recommended that EPA require the States to pursue the following general procedure to implement water quality management planning in nonmetropolitan areas;

1. *Conduct an assessment of the water quality problems in nonmetropolitan areas throughout the state.*

2. *Conduct an assessment of the planning accomplishments and capabilities of designated substate district planning agencies throughout the state.*

3. *Identify the most critical water quality problems in nonmetropolitan areas and designate them for inclusion in a special problem analysis element of either a river basin plan or a* **Nonmetropolitan Areawide Water Quality Management Plan.**

4. *Identify those substate district planning agencies which are "ready" to undertake the preparation of their* **Nonmetropolitan Water Quality Management Plan,** *and assist them in preparation of a Federal planning grant application.*

5. *Assist those substate planning agencies not yet "ready" to undertake formal preparation of their Nonmetropolitan Water Quality Management Plan in identifying modifications to current planning work programs which can be accomplished (within current funding levels) to support the development of a water quality management plan at some future time.*

6. *Establish a timetable for completion of current and anticipated planning programs which will inhance each district agency's capability to develop an areawide water quality management plan.*

7. *Establish, in conjunction with the EPA Regional Office, planning progress indicators for each substate district to assist in determining EPA construction grant eligibility.*

The State water quality planning agency should be responsible for coordinating these procedures with the State comprehensive planning office and each substate district director. In addition, close communication should be maintained with the following agencies:

- EPA Regional Offices
- HUD Regional and Area Offices
- FHA State Offices
- EDA Regional Offices and State Economic Development Representatives in States where at least one EDD has been established

Assessing Capabilities

The State Planning Office (in conjunction with representatives of State Departments of Local or Community Affairs, where they exist as separate agencies) is the appropriate agency to prepare an assessment of the current status of areawide planning in each State-designated nonmetropolitan district. This assessment should provide the latest information concerning:

- the type of areawide planning organizational designations for each nonmetropolitan planning agency (EDD, NMD, LDD, COG, State-designated substate district, RC&D, etc.);
- the organizational progress of the State-designated district agency (staff, governing board, Clearinghouse designation, functional committees, HUD organizational certification, water quality planning designation, etc.);
- the current and anticipated funding levels of the agency (EDA, HUD, FHA, State, local, etc.);
- the current status of completed and on-going planning efforts (OEDP, statement of goals and objectives, level of HUD planning certification, including Land-Use and Housing Elements, HUD and/or FHA water and sewer functional planning, etc.)
- the sources of other technical assistance and planning support available to the planning agency (Rural Development Committees, Extension Service, SCS, RC&Ds, Forest Service programs and personnel; and State field personnel, etc.)

Assessing Water Quality Problems

More attention needs to be devoted in river basin and areawide water quality management planning efforts to analyzing water quality problems in rural or nonmetropolitan areas, and to identifying and examining alternatives for achieving water quality objectives in these areas.

A functional water quality management planning process is a particularly urgent need in those nonmetropolitan areas where the existence of dispersed water pollution sources often makes the construction of additional waste treatment facilities an inefficient or infeasible alternative.

The survey found that such problems as soil erosion, agricultural wastes and run-offs, subsurface drainage, and pollution associated with rural-based industries such as logging and mining, are receiving practically no attention through the water quality management planning process. Correspondingly, such alternatives as joint disposal, improved soil conservation practices, disposal lagoons for agricultural wastes, aeration stabilization ponds, septic tank maintenance, and natural aeration processes are also receiving little consideration in on-going water quality management planning.

These problems should be examined through assessment of existing and potential water quality problems for all nonmetropolitan areas in each State This assessment should be the prime responsibility of the State water quality planning agency, and should categorize nonmetropolitan water quality problems in terms of industrial, municipal and nonpoint sources. The focus of this effort should be the identification of significant water quality problems which prevail in each nonmetropolitan district. (Further discussion of this assessment can be found in Appendix A.)

In preparing this assessment, the State water quality planning agency should rely on existing planning documents and supporting data that has been generated by each nonmetropolitan district agency, and on advice and technical assistance from such agencies as the SCS, Agricultural Stabilization and Conservation Service (ASCS), U.S. Forest Service, local health departments, the Corps of Engineers, river basin planning commissions, and State agencies with responsibilities for water supply, agriculture and natural resources programs.

Determining Planning Readiness

On the basis of these assessments, the State water quality planning agency, in conjunction with the State Planning Office and EPA, can determine which district agencies are "ready" to apply for a Federal grant to support areawide nonmetropolitan water quality management planning. This determination should be based on:

- The existence of special water pollution problems which should receive priority consideration in the planning process and the delineation, where necessary, of planning sub-areas within substate districts as "Problem Analysis Areas" where special organizational arrangements, accelerated planning schedules, or more rigorous and detailed water quality management plans need to be developed.

- The extent of completed and on-going district planning activities related to the water quality management planning process.

- The availability of completed and on-going planning activities of **other** agencies within the district which may be related to water quality management planning.

- Agreed upon modifications in the district agency's work program that can be accomplished within current staffing and funding levels and which would contribute to the development of the district's **Nonmetropolitan Areawide Water Quality Management Plan.**

- The availability of other technical and planning resources to the district planning agency.

If the EPA Regional Office approves the State's determination that the district agency is "ready," an application for a Federal planning grant should be prepared. If the district planning agency is not considered "ready" by the State and the EPA Regional Office, or a Federal planning grant is not available, the following steps should be taken:

- The future planning activities to be undertaken by the district agency should be reviewed to determine their relationship to the development of a **Nonmetropolitan Areawide Water Quality Management Plan** for the district;

- Planning progress indicators which will be considered in determining EPA construction grant eligibility should be negotiated.

Establishing Planning Timetables. These progress indicators should be geared to timetables for meeting Federal planning requirements, particularly those of HUD and EPA. This schedule should be based on a realistic assessment of when nonmetropolitan district agencies will make the necessary institutional progress, in terms of organization, staffing, funding and accomplishment of basic comprehensive and functional planning tasks, to undertake EPA's planning requirements.

The preparation of schedules and timetables for meeting Federal planning requirements in nonmetropolitan areas on a district-by-district basis can serve as an indicator for establishing EPA and HUD policies concerning planning requirements and grant eligibility. This procedure, if based on a realistic assessment of the existing situation in nonmetropolitan areas, will no doubt involve waiving some of the EPA requirements for "fully developed" areawide plans considerably beyond the current July 1, 1973 deadline.

Furthermore, if such a procedure is followed in each of the twelve Federal Regions, it will provide EPA headquarters with a composite national picture of the current status of areawide planning in nonmetropolitan areas and the progress that can be expected in accomplishing water quality management planning for these areas.

Delivering Technical Assistance. The States should also prepare a statewide program design for the provision of technical assistance to support substate district agencies in the development of areawide water quality management plans. Emphasis should be placed on the coordinated management of all technical resources within the State capable of providing assistance to nonmetropolitan district organizations. This program design should be the joint responsibility of the State Comprehensive Planning Office and the State water quality agency. It should identify sources of technical assistance from Federal and State agencies and require substate agencies to develop coordinative procedures and working arrangements for technical support from field personnel of such agencies as the Soil Conservation Service, the Federal-State Extension Service, the U.S. Forest Service and the Corps of Engineers.

Coordination of Federal Programs

To support the States and their nonmetropolitan planning and development agencies in implementing a water quality management planning process for nonmetropolitan areas, EPA should continue to work toward improved coordination of the Federal planning requirements of HUD, FHA and EDA, and in addition, should strengthen coordinative procedures at the Federal Region State and areawide levels.

The following actions are recommended to further improve planning coordination.

- *EPA should recognize, and encourage HUD to recognize, State designation of an agency for substate district planning purposes and for A-95 Clearinghouse responsibilities as the only requirements for areawide organi tional and coordinative planning certification for water quality planning in nonmetropolitan areas.*

- *EPA should support a study to analyze in detail existing planning requirements of Federal agencies supporting water* **quality related** *planning in nonmetropolitan areas to identify those planning activities which are useful to areawide water* **quality management** *planning. The study should also identify (1) commonalities in terms of nomenclature, procedures, requirements and standards, and (2) differences among existing requirements which result from law, legislative intent, basic agency policy, as well as those which seem to result from agency preference.*

- *EPA should help EDA design the environmental assessment element of the OEDP to be of maximum value to water quality management planning as well as to other environmental planning required by EPA.*

- *EPA should encourage its Regional offices to work with HUD and the States to allow scheduling, where appropriate, of a water quality management planning element as a phase of functional areawide water/sewer planning supported through '701' grants.*

- *EPA Regional offices should work with FHA State offices and the States to build into FHA planning grant agreements additional EPA requirements for water quality management planning.*

Functional Planning Requirements. The study of FHA, EDA, HUD and EPA planning requirements should be based on an analysis of the specific planning activities required by each agency for functional plans related to water quality. These requirements, or planning inputs, should then be compared with completed plans funded and approved by each agency on the basis of their own requirements. Such a comparison of planning inputs (requirements) and planning outputs (completed plans) should help clarify the additional planning inputs EPA considers necessary for adequate water quality management planning.

For instance, EPA planning officials should examine EDA-approved OEDPs to determine if any of the information developed therein provides some basis for the development of a water quality management plan. Once this determination is made, EPA can work with EDA to determine how nonmetropolitan districts can build upon the information developed in their OEDPs to provide a sounder basis for an areawide water quality management plan at a future date.

Since EDA is currently developing guidelines for the inclusion of an environmental assessment as part of the OEDP process, it is suggested that EPA aid EDA in developing these guidelines so that they can be of maximum value to water quality management planning as well as to other environmental planning.

Improved coordination of EPA-HUD functional planning can be achieved by scheduling a water quality management planning element as part of HUD's areawide water/sewer planning. This schedule should be negotiated among HUD and EPA Regional offices, the State Planning Office, the State water quality planning agency and the district planning agency involved. The EPA Regional Office should play a leading role in this effort by reviewing all completed HUD areawide water/sewer plans for each nonmetropolitan area and all current Annual Work Programs for those district planning agencies receiving HUD '701' funds. This review can provide the basis for an analysis of those water quality planning elements which have not been adequately accomplished for the area.

On the basis of this review and the assessment of planning institutional capabilities and nonmetropolitan water quality problems previously described, negotiations should be undertaken with HUD, the State Planning Office, the State water quality planning agency, and each nonmetropolitan district planning staff, concerning a work plan for a water quality planning element.

It would be nearly impossible to set forth a standard format for such a water quality planning element due to vast differences in plan content of HUD-approved functional water/sewer plans, in the institutional capabilities of substate district planning agencies, and in the nature and severity of water quality problems in nonmetropolitan areas. The advantage of this approach is that it provides a flexible framework for dealing with this diversity while at the same time accomplishing at least a portion of EPA's areawide water quality planning requirements through the HUD '701' program.

EPA-FHA planning should continue to be coordinated by building water quality management planning requirements into FHA rural water/sewer planning requirements. The survey revealed that FHA officials in each State were including certain water quality planning requirements into FHA grant agreements with planning agencies in nonmetropolitan areas. The specifics of these planning tasks varied depending on the quality and quantity of available information and State Office interpretations of FHA's grant authority. In some States, FHA rural water/sewer plans are submitted to the State water quality planning office for review with respect to EPA's planning requirements. Recent FHA directives require this procedure to be followed for all FHA water and sewer plans.

This type of Federal coordination can have a significant impact on accomplishment of at least some of EPA's planning requirements in rural areas. EPA Regional Offices should continue to maintain close communication with FHA in order to improve the water quality aspects of FHA planning.

EPA Regional offices, along with State comprehensive planning offices and water quality planning agencies, should also promote the coordination of FHA and HUD areawide water/sewer planning. Coordination should take the form of a single planning document, jointly funded, to meet the comprehensive planning requirements of both HUD and FHA. In other words, areawide land use elements, population and economic studies, and goals and objectives ordinarily prepared to meet

HUD's '701' Areawide Planning Requirements should also be used to satisfy FHA and EPA requirements. In addition, whenever possible, HUD and FHA water/sewer planning should be timed to coincide, allowing the areawide planning agency to prepare a single areawide water/sewer plan to satisfy both HUD and FHA requirements.

The cost of developing the planning document should be shared by both HUD and FHA whenever both agencies have awarded planning grants to the same areawide planning agency. The cost to each agency should be prorated with FHA funding water/sewer planning for rural areas and communities under 5,500 population, and HUD funding planning for the remaining urban areas in the district not eligible for FHA funding.

These and other opportunities for interagency planning coordination should be carefully examined by the interagency committee working to unify Federal planning requirements for functional water/sewer-water quality planning. Such an approach should enable EPA to work with HUD, EDA and FHA to build on existing planning efforts rather than requiring the States and their nonmetropolitan district agencies to ignore existing plans and begin developing an entirely new planning process to meet EPA requirements.

Finally, efforts to unify Federal planning requirements should also identify ways to present planning **incentives** to district agencies and their member local governments. For instance, all four Federal agencies should work to design planning programs which provide for establishment of locally determined priorities through the planning process, and which give assurance that these local priorities will influence the setting of priorities by State and Federal agencies.

Strengthening the A-95 Process

To effectively involve nonmetropolitan substate district agencies in the water quality management planning process and to improve Federal-State-areawide communication, *it is recommended that EPA and the States encourage maximum involvement of State A-95 Clearinghouses and/or State comprehensive planning offices (SPOs) in all aspects of water quality management planning.*

To more effectively employ the A-95 Clearinghouse process at the State and areawide levels, it is recommended that *EPA, in cooperation with OMB, support a study to develop criteria and guidelines which define and describe the optimal role of Clearinghouse agencies in influencing water quality management planning in nonmetropolitan areas.* Such criteria and guidelines for the effective use of the A-95 process in water quality management planning should be based on evaluations of the experience of State and nonmetropolitan Clearinghouse agencies in administering the A-95 process. (See Appendix B for a more complete discussion of how the A-95 process can strengthen water quality management planning.)

Planning Grants for Nonmetropolitan Districts

If water quality **management planning** is to be accomplished in nonmetropolitan areas quickly enough to affect expenditures in the timeframe envisioned in pending water quality legislation, it will have to be funded on an accelerated basis. Therefore, it is strongly recommended that:

- *Every effort be made to stimulate and fund Federal planning grant applications from State designated substate district planning agencies for nonmetropolitan areawide water quality management planning.*

- *Federal agencies supporting water quality-related planning should be encouraged to increase their technical support for such planning, as well as to coordinate their planning requirements and implementation timetables whenever possible.*

In determining priorities for Federal funding, EPA Regional offices should carefully examine all nonmetropolitan areas on a State-by-State basis, relying on the assessments of district planning readiness and nonmetropolitan water quality problems.

In those nonmetropolitan areas with specific problems distinct from the usual water quality management planning problems associated with population growth, allocation of waste loads, or opportunities for regionalization of municipal treatment facilities, EPA should consider funding a "special problem area study" on a priority basis. Special problem area amenable to such an approach might include pollution problems associated with agricultural, surface mining or timber production, solid waste disposal, outdoor recreation, or climatic and geological conditions. This type of functional water quality planning could be funded with a small Federal grant, or perhaps through other EPA categorical grants for research and planning.

In addition, EPA should explore the possibility of joint funding with other Federal program agency sources, such as SCS, the Corps of Engineers, ASCS, the U.S. Forest Service, or through cooperation with university Water Resources Research Institutes receiving Federal research grants from the Water Resources Council. In some instances, EDA Technical Assistance Grants can be used to examine water quality problems in eligible areas where industrial development or expansion is held back due to industrial pollution problems.

Recommendations for an Information Program

It is recommended that EPA support the overall objectives of water quality management planning by establishing a nontechnical information program designed to build understanding of the purposes and need for cost-effective water quality planning and to prepare a technical handbook on nonmetropolitan water quality problems for use by substate planning agencies in developing the **Nonmetropolitan Areawide Water Quality Management Plans.**

State and areawide agencies should not continue to view water quality management planning as another requirement that must be accomplished in an expedient manner in order to receive Federal construction grants. Any specific recommendation for improving or implementing water quality management planning in nonmetropolitan areas must be supported by a concerted effort on the part of Federal agencies to inform the responsible State and local officials of the benefits which can result from effective management planning.

Cost-effectiveness is a difficult concept to sell State and local governments accustomed to working with Federal categorical grant programs. The existing system has promoted an almost universal attitude of "grantsmanship" whereby State and local officials attempt to maximize their Federal

project grants. However, the States can benefit from management planning by applying the cost-effectiveness approach to **State funds** budgeted to match Federal construction grants under Section 8 of P. L. 660.

The States can also emp'oy an effective management planning process to complement existing regulatory and enforcement responsibilities of State water quality agencies. The survey produced numerous examples of the need to link water quality management planning with other on going planning and development activities at the State level. The most obvious examples include planning for industrial development, housing, water and waste disposal systems, outdoor recreation and natural resource conservation and development. If water quality management planning is not linked **now** to planning for these and other related activities, the States will find their future policy options for water quality management seriously circumscribed. The States must realize that if the present trend of reliance on regulatory controls and enforcement prevails, their funding priorities will continue to be geared to **remedial solutions** designed to maintain water quality standards.

Management Planning Problems in Nonmetropolitan Areas. Officials of most nonmetropolitan planning organizations also need to be convinced of the desirability and necessity of their participation in the water quality management planning process. They should be aware of the potential impact water quality management planning has on every aspect of their overall missions. Many nonmetropolitan planning staffs do not realize the impact water quality considerations will have on the future economic growth and development of the area, and the impact water quality management planning can have on many of their current plans and programs.

In addition, nonmetropolitan planning officials need to recognize the implications of their failure to develop areawide Water Quality Management Plans. If they abdicate their role in developing areawide plans, water quality planning for their area will be accomplished, but by the State through the required river basin plans. The prospects for achieving meaningful local inputs and for accurately linking areawide planning and priorities with river basin planning will be seriously diminished when substate district agencies do not have a major role in the planning process.

Finally, other incentives for planning need to be presented to nonmetropolitan planning agencies. In essence, the need for comprehensive and functional planning has been sold to local officials on the grounds that areawide goals and objectives should be determined at the local level, and that priorities for project implementation will be locally determined to achieve these goals and objectives.

However, the overriding goal of water quality management planning is the maintenance or achievement of water quality standards which are set at a higher level of government-either State or Federal. The immediate objective is the determination of cost-effectiveness of Federal funds. Although local funds must also be committed to support project costs, priorities for implementation are not locally determined. In the words of one EPA Regional Office Planning Chief:

> Implementation schedules depend on **basin** and **interbasin priorities,** local funding capabilities, State assistance (if available) and anticipated Federal revenues, primarily from Section 8 of P. L. 84-660 as amended . . . . **Water quality standards** are the initial basis for designing facilities and a **cost-effective implementation of Section 8 funds should be the focus of the planning process.** (emphasis added)

This type of planning function may be less difficult to sell to metropolitan planning staffs whose overriding mission often involves the regulation and control of growth rather than the stimulation of growth and development. Even in these areas, however, the planning function, to be totally effective, must make provisions for local determinations on planning strategies and project priorities.

Again, quoting from the same source on HUD planning procedures and objectives:

> Implementation periods (for HUD grants) are determined locally and are a function of local growth characteristics . . . Typically, all communities who have complied with the HUD functional planning requirements are of equal priority and funds are allocated until monies are unavailable.

There is no easy answer to this dilemma. Clearly, EPA planning must be concerned with broad water quality goals for entire river basins, often at the expense of local priorities. To develop effective areawide Water Quality Management Plans for nonmetropolitan areas, however, some accommodation with local priorities needs to be made. Until local communities and their areawide planning staffs feel they have at least equal influence with State and Federal agencies in a balanced intergovernmental management planning system, it is doubtful that an effective water quality planning process can be fostered in nonmetropolitan areas.

On the contrary, whenever local officials and planning staffs view the planning process as a tool which primarily benefits Federal and State agencies in making allocation decisions within a larger statewide, regional or national context, incentives for a realistic, locally oriented planning function are removed and the planning process often becomes a sterile exercise in grantsmanship.

Appendix A

Framework for Assessing the Character and Extent of Water Quality Problems in Nonmetropolitan Areas

INTRODUCTION

The nonmetropolitan regions of the nation have the same water quality problems as the metropolitan areas. In addition, some water quality problems are inherent to nonmetropolitan areas only. Unfortunately, because of the dispersion of the problems, design and implementation of effective water quality control measures is very difficult. The limited technical and financial resources of nonmetropolitan areas further complicates water quality management.

Along with discharges from municipal and industrial sewage plants, man's agricultural activities increase the waste load carried by the waterways. Sediment loads are increased by failure to utilize soil conservation techniques in the production of crops. Nutrients derived from native soils, crop residues, fertilizers and livestock wastes enter waterways and accelerate the eutrophication process. Pesticide, fungicide and herbicide residues enter the water environment where they are concentrated in the tissues of living animals.

Mineral resources are extracted in some rural areas. Runoff from active and abandoned mines contains sediment and chemical leachates which cause extensive problems in some areas. Some oil reservoirs produce large quantities of saltwater (chlorides) along with oil and gas. Often, saltwater escapes into streams causing appreciable problems.

Leachates from septic tanks and landfills cause serious problems of a localized nature. Other problems of concern to the nonmetropolitan area include sediment from construction and forestry operations; thermal discharges from power and other industrial plants, and saltwater intrusion into fresh water supplies.

These nonmetropolitan water quality problems must be assessed and considered as part of a logical, systematic water quality management planning process.

PLAN REQUIREMENTS

The assessment of water quality problems in nonmetropolitan areas must proceed in a manner that permits incorporation of the assessment into applicable areawide water quality management plans. Basically, these plans require the following coverage:

- Objectives–statement of water use goals to be achieved.

- Problem Statement–analysis of the nature of the water pollution problems with regard to impact of water quality, geographic extent, social and economic forces, waste loads and technical considerations for handling these loads, and rates of change in the problems.

- Planning Premises–statement of premises upon which the plan is based. This includes legislative authority, local conditions, institutional arrangements and problems, and resources.

- Alternative Solutions–analysis of strategies to reach the stated objectives.

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- Water Quality Management Strategy–presentation of a strategy for achieving the water objectives based on an evaluation of the merits of the alternative solutions.

The framework described herein is primarily concerned with development of information required in the **Problem Statement** and the **Alternative Solutions** sections of the plan. In recognition of the limited capabilities of most nonmetropolitan area staffs, emphasis is placed on sources of technical assistance for assessment of nonmetropolitan water quality problems and promulgation of alternative solutions to these problems.

FRAMEWORK FOR ASSESSING NONMETROPOLITAN WATER QUALITY PROBLEMS

The water quality management plan deals with the quality of water in bodies which receive pollution loads. All nonmetropolitan water quality problems must be identified and evaluated with regard to their present and projected effect on stream quality. The basic factors to be considered include:

- Descripiton of planning area characteristics.

- Identification of all pollution sources and determination of the quantity of discharge or waste load of each pollutant and present treatment for each pollution source.

- Assessment of the effect of each pollution source on the quality of the receiving stream and a determination of the required degree of treatment.

- Alternative methods for correcting water quality problems and maintaining stream standards.

Planning Area Characteristics

The water quality management problems of a nonmetropolitan area are related to the growth and economy of the area. Pollution loads from municipal sewage plants, industrial plants, construction activities, and domestic sources increase if the area population increases. Intensified agricultural operations can increase sediment, nutrient and pesticide levels in receiving streams. The socio-economic factors relating to growth and water quality problems of the area must be evaluated. Specific tasks to be accomplished in this evaluation include:

- Evaluation of population and economic trends and projection of anticipated population and economic growth. The rural farm and rural nonfarm population sectors are of specific importance.

- Description of the physical and natural resources of the area. The present and projected impact of resource recovery operations on water quality problems of the area should be evaluated.

- Evaluation of land-use trends and factors affecting land use. Many nonpoint pollution sources are strongly related to land-use trends (i.e., agricultural and mining sources). The effect of land use changes on these sources should be considered.

- Growth areas should be delineated. Existing or projected water quality problems due to municipal, industrial and individual-domestic waste loads should be evaluated.

Identification of Pollution Sources

All sources of pollution must be identified and evaluated with regard to their effect on stream quality. Specific items to be accomplished in this evaluation include:

- Identification of all wastewater discharges including point sources and runoff transporting waste loads from areal sources.

- Determination of the volume of quantity of discharge of the effluent and present treatment for each pollution source. This determination is usually very difficult for nonpoint sources. A determination of the areal extent of nonpoint sources and the degree to which these sources are controlled is needed.

Effect of Pollution Sources on Water Quality

An assessment of the effect of each pollution source on the quality of the receiving stream and a determination of the required degree of treatment should be made. An evaluation of stream quality in the planning area is essential to determine the type and degree of treatment required. This data is collected and evaluated during the course of the river basin studies. The low-flow characteristics and assimilative capacity of the receiving stream dictate allowable waste loadings to maintain stream standards. Assignment of allowable waste loadings for the planning area should be performed by the state water quality agency.

A comparison of present and allowable waste loadings with recommendations as to the degree of treatment required to maintain stream standards is needed. The projected waste loadings over a 10 year period should also be considered. A degree of treatment is usually not specified for nonpoint sources. Rather, a technique for controlling discharges from the areal source is developed.

Few nonmetropolitan areas possess the staff capability required for proper analysis of their water quality management problems. Consultants will generally be utilized for preparation of water quality management plans. Numerous Federal, State and local agencies are actively dealing with nonmetropolitan water quality problems. The expertise and financial resources of these agencies should be utilized in developing a water quality management plan. Table 1 lists agencies which may provide technical assistance in assessing water quality problems of particular importance to nonmetropolitan areas. Also listed are agencies which may provide funds for control of these problems.

Alternative Methods for Control of Water Quality Problems

In addition to conventional municipal sewage plants, control of rural water quality problems requires utilization of land-treatment measures, stabilization ponds, controlled agricultural practices, flow augmentation and other treatment measures. Table 2 presents alternative pollution control measures which can be implemented for management of nonmetropolitan water quality problems. The water quality management plan selected for the area must include a cost-effective combination of pollution control measures which reduce the waste loads sufficiently to maintain stream standards.

Table 1

Waste Load Source	Technical Assistance	Sources of Funds For Corrective Measures
Municipal waste treatment plants	EPA--Water Quality Office State Water Quality Agency U.S. Army Corps of Engineers Department of Interior--Bureau of Reclamation State Planning Office	EPA--Water Quality Office USDA--Farmers Home Adm. Department of Commerce--EDA
Industrial waste treatment plants	EPA--Water Quality Office State Water Quality Agency U.S. Army Corps of Engineers Department of Interior--Bureau of Reclamation	Department of Commerce--EDA Private Sector
Agricultural Operations		
Erosion and sedimentation	USDA--Extension Service Forest Service Soil Conservation Service State Department of Agriculture U.S. Army Corps of Engineers Department of Interior--Bureau of Reclamation Tennessee Valley Authority	USDA--Agricultural Stabilization & Conservation Services Farmers Home Adm. Soil Conservation Service U.S. Army Corps of Engineers
Nutrient control (fertilizers, livestock wastes)	USDA--Extension Service Forest Service Soil Conservation Services State Department of Agriculture State Water Quality Agency EPA--Water Quality Office Tennessee Valley Authority	USDA--Agricultural Stabilization & Conservation Services Farmers Home Adm. Soil Conservation Service
Pesticides, fungicides, herbicides	USDA--Agricultural Research Service Extension Service EPA--Water Quality Office Department of Fisheries and Wildlife State Department of Agriculture State Water Quality Agency	USDA--Extension Service Soil Conservation Service U.S. Army Corps of Engineers (aquatic plant control)
...ining and Drilling		
Mining	Department of Interior--Bureau of Mines State Natural Resources or Mining Agency State Water Quality Agency Appalachian Regional Commission EPA--Water Quality Office	Department of Interior--Bureau of Mines Appalachian Regional Commission Private Sector

Table 1 (Cont'd)

Waste Load Source	Technical Assistance	Sources of Funds For Corrective Measures
Mining and Drilling (Cont'd)		
Oil and Gas Recovery	Department of Interior--Bureau of Mines State Natural Resources Agency State Water Quality Agency EPA--Water Quality Office	Department of Interior--Bureau Mines Appalachian Regional Commission Private Sector
Forestry (erosion, sedimentation, sawing wastes)	USDA--Extension Service Forest Service State Department of Forestry Tennessee Valley Authority	USDA--Agricultural Stabilization and Conservation Service Farmers Home Adm. Forest Service
Private waste disposal systems (septic tanks, drain fields, privies)	Local Health Agency State Health Agency USDA--Soil Conservation Service State Water Quality Agency	USDA--Farmers Home Administration Private Sector
Solid Waste Disposal	EPA--Solid Waste Management Office State Solid Waste Management Agency USDA--Soil Conservation Service	EPA--Solid Waste Management Office Department of Housing and Urban Development USDA--Farmers Home Adm.
Building and Construction		
Highways	Department of Transportation--Federal Highway Administration State Department of Highways	State Highway Funds
Structures	Local Planning and Zoning Commission	Entity Responsible for Construction Private Sector
Power Generation (waste heat)	Federal Power Commission EPA--Water Quality Office U.S. Army Corps of Engineers Tennessee Valley Authority Department of Interior--Bureau of Reclamation State Water Quality Agency	Power Generating Entity

Table 1 (Cont'd)

Waste Load Source	Technical Assistance	Source of Funds For Corrective Measures
Storm Drainage	EPA--Water Quality Office Department Housing and Urban Development--Community Development State Water Quality Agency	Department Housing and Urban Development--Community Development USDA--Farmers Home Adm.
Water treatment plants	EPA--Water Quality Office State Department of Health State Water Quality Agency	Department of Commerce--EDA USDA--Farmers Home Adm.
Saltwater Intrusion	EPA--Water Quality Office State Department of Water Resources State Water Quality Agency U.S. Army Corps of Engineers Department of Interior--Bureau of Reclamation USDA--Extension Service Soil Conservation Service	Department of Interior--Bureau of Reclamation USDA--Soil Conservation Service Private Sector

Table 2

Waste Load Source	Alternative Correction Measures
Municipal waste treatment plants	Closer regultion of existing treatment. Increased treatment of wastewater. (advanced treatment, additional plants regionalization of wastewater systems). Relocation of discharge points. Spraying sewage on land surfaces. Diversion from basin. Flow regulation. In-stream modification. Control of wastewater quantities through planned growth.
Industrial waste treatment plants	Water reuse. Discharge to municipal system. (Same measures as municipal treatment plants).
Agricultural Operations	
Erosion and sedimentation	Sediment retention reservoirs. Protective vegetation. Lined drainage channels. Improved tillage methods. Contouring and terracing. Soil stabilization with chemicals.
Nutrient control (fertilizers, livestock wastes)	Maintenance of buffer zones between cultivated or livestock containment areas and streams.
	Establishment of fertilizer management and education program to develop proper fertilizer application techniques.
	Disposal lagoons and holding ponds for livestock and poultry wastes.
	Facilities for winter storage of animal wastes. Disposal by spreading in the spring.
Pesticides, fungicides, herbicides	Regulation of commercial sprayers.
	Development of education programs for controlled use of pesticides.
	Maintenance of buffer zones and windbreaks between cultivated areas and streams.
Mining and Drilling	
Mining	Land treatment and reclamation measures for erosion prevention in mined areas.
	Lagoons and settling ponds for solids removal.
	Permanent or portable chemical treatment facilities.
	Closing and sealing abandoned mines.
Oil and Gas Recovery	Underground injection of wastes into contaminated strata.
	Capping and sealing old wells.

Table 2 (Cont'd)

Waste Load Source	Alternative Correction Measures
Forestry (erosion, sedimentation, sawing wastes)	Management of selected cutting and harvesting practices.
	Sediment retention structures.
	Protective vegetation.
	Vacuuming or mechanical clean-up of mill residue.
Private waste disposal systems (septic tanks, drain fields, privies)	Regulation and establishment of criteria for private disposal system installation and operation. Disposal of septic tank pumpage at municipal facilities. Use of small neighborhood sewage treatment facilities.
Solid Waste Disposal	Installation of leachate collection and treatment facilities. Regulation of landfill location and construction. Induced leaching at existing landfills to accelerate refuse decomposition.
Building & Construction (Highways and structures)	Temporary sediment retention structures. Maintenance of buffer zones between construction sites and streams.
	Mechanical or chemical soil stabilization. Sodding to minimize exposed soil surfaces.
Power Generation (Waste heat)	Installation of cooling towers.
	Off-stream storage.
	Low-flow augmentation.
Storm Drainage	Temporary holding and settling structures.
Water Treatment Plants	Discharge sludge and backwash to municipal sewage plants.
	Construction of lagoons and holding ponds for disposal.
Saltwater Intrusion	Regulation of fresh water withdrawal.
	Construction of recharge wells or reservoirs.

Appendix B

The A-95 Process and Water Quality Management Planning

The overall objectives of water quality management planning can be supported and the role of nonmetropolitan district organizations in the planning process strengthened through the involvement of State Comprehensive Planning Offices (SPO) in all aspects of water quality management planning. On the basis of the survey, a broad framework for increasing the effectiveness of these offices and the A-95 process in water quality management planning can be identified.

Through their designation as State Clearinghouses under OMB Circular A-95, and through their overall State planning mission and responsibilities, SPOs can support water quality management planning objectives by:

- improving coordination of related functional planning;
- improving the linkage between functional planning and State and areawide comprehensive planning; and
- supporting the integration of water quality management plans into State Program Plans.

The survey indicated that SPOs have the potential to vastly improve the water quality management planning process. Clearinghouse personnel are usually experienced, highly motivated professionals who, due to the nature of their responsibilities, are knowledgeable of all the implications and subtleties involved in establishing an effective water quality management planning process.

However, Clearinghouse personnel are often hampered due to the absence of statutory authority and State plans and policies to support the Clearinghouse role. In addition, State Clearinghouse agencies are usually so understaffed and underfunded that they cannot adequately perform all the responsibilities involved in administering the A-95 process as well as the other components of a State planning function. The failure of the States to develop State plans and policies and the shortage of staff and funds necessary to effectively administer A-95, can be partly resolved through increased financial support to Clearinghouse agencies from State and Federal sources.

The lethargy sometimes evident in the administration of A-95, which results, in part, from the lack of statutory authority for and political support of the review and comment process, can be alleviated through the legitimatization of the SPO's role in all aspects of water quality management planning. To date, the involvement of SPOs in water quality management has not been heavily promoted in many States. If a conscious but low-keyed effort is made to activate SPOs in the planning process, this lethargy will largely disappear. As "trouble shooters" in matters related to water quality management, SPOs can vastly improve water quality management planning through a role as conciliator, negotiator, technical advisor and promoter of cooperation and coordination.

SPOs, through their Clearinghouse and general State planning functions, can play a key role both in **implementing and coordinating** a management planning process and influencing the **outcome** or result of the planning process on State programs and policies. In the former instance, SPOs can influence planning **inputs** to facilitate efficiency through the resolution of institutional conflicts and through the avoidance of waste and duplication of efforts. In terms of overall **outcomes** which can be influenced by a coordinated planning process, SPOs must be involved to insure that planning and policies are linked.

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Planning Coordination

The SPO's role in the management process should focus on planning coordination. Coordination should be effected horizontally–or among related activities of State or Federal agencies–and vertically–or between the different levels of government involved in an intergovernmental planning and management system.

Horizontal coordination involves linking the various activities of State agencies whose missions relate to water quality management; or the programs of Federal agencies such as FHA, EDA, HUD, and EPA with a direct role in water quality management.

Vertical coordination involves linking the efforts of nonmetropolitan planning agencies, State water quality planning agencies and the same Federal agencies into a unified approach to management planning.

The crucial ingredient necessary to effect this "input" or "process" coordination is the establishment of routine and operational communication linkages. Many SPOs are now providing the necessary communication between HUD and nonmetropolitan districts through the administration of the '701' Comprehensive Planning Assistance Program. In one State, for example, the SPO reviews all HUD water and sewer plans prepared by nonmetropolitan districts prior to HUD approval. This review allows SPO personnel to provide technical assistance to district planning staffs concerning compliance with HUD's requirements, and to communicate to HUD the planning objectives of district organizations and the problems that nonmetropolitan planning staffs must deal with in meshing HUD's planning requirements with areawide goals and objectives.

At the State level, horizontal coordination can be promoted by SPOs through the maintenance of communication among State water quality planning agencies, health departments and water resources planning agencies to support river basin water quality management planning.

Other examples identified in the survey where SPOs had worked to improve communication and coordination in areas related to water quality management include the encouragement of HUD-FHA coordination of water/sewer planning grants, and communication between nonmetropolitan planning staffs and State water quality planning staffs concerning local planning inputs into river basin planning.

There are other techniques that, through the leadership of the SPO, can be used to improve the planning process. To support river basin-areawide coordination in the water quality managemen planning process, SPOs can take the lead in organizing nonmetropolitan water quality planning advisory committees composed of executive directors of district agencies. This kind of effort can be augmented by the organization of State or areawide technical task forces consisting of Federal and State agency technicians to assist nonmetropolitan planning staffs in developing areawide water quality management plans. Since, through their Clearinghouse role, SPOs are required to deal with all Federal development agencies, they are in a good position to promote this type of cooperative arrangement.

Federal agencies such as EDA should also support SPO efforts in the coordination of water quality management planning. When problems arise over HUD–EPA organizational and planning requirements for EDDs, SPOs should be involved in negotiating an agreement.

Finally, and perhaps most importantly, the overall goal of SPOs in regard to water quality management planning in nonmetropolitan areas should be directed toward strengthening the overall institutional capabilities of nonmetropolitan planning organizations in comprehensive and functional planning and in the performance of Regional Clearinghouse activites called for in Circular A-95. Through support of an overall upgrading of the planning and coordinative capabilities of these agencies, SPOs will be in a position to promote a stronger role for nonmetropolitan district agencies in the water quality management planning process.

Policy Planning

The overall goal of water quality management planning can be defined as a process to influence policies, priorities and outcomes. This goal implies a broader concept than the coordination of inputs to assure efficiency and avoid waste and duplication. Here again, SPOs can play a major supporting role.

The key measures for achieving this **outcome**–oriented goal through the planning process involve the development of State and areawide comprehensive plans and development policies and the integration and accomodation of the goals and objectives of functional planning into the overall policy planning process. To influence the ultimate outcome of water quality management planning, it must be closely linked with land-use goals and policies for housing, development and conservation of natural resources, transportation, and balanced economic growth and development.

The States, usually supported by Federal grants, are experimenting with a number of techniques to help formulate goals and policies in these areas. For water quality management planning to be effective, it must be linked, from its inception with these efforts. The survey identified several on-going efforts in the States that can help link water quality management planning with State policies for growth and development. Some of these efforts include:

- State "regional" investment or development plans supported by multistate regional commissions such as Appalachia, the Coastal Plains and the Upper Great Lakes;

- The development, in one State, of a statewide investment plan supported by a Technical Assistance grant from EDA;

- Studies, funded through HUD '701' grants, to support the formulation of a balanced metropolitan-nonmetropolitan growth policy in one State;

- The implementation of a HUD-supported Demonstration Program to support planning and development activities in nonmetropolitan districts; and

- The creation, in one State, of a State task force to recommend a strategy for formulating State land-use policies.

These and other techniques can provide the basis for linking water quality management planning with State and areawide comprehensive planning within an overall statewide policy framework for balanced growth and development. For instance, if water quality management inputs are integrated into the development of statewide land-use policies, future policy conflicts may well be avoided through the coordinated development of:

- The Section 7 State Program Plan;
- State priorities for Section 8 Construction Grants;
- State land-use policies, and
- River Basin and areawide Water Quality Management Plans.

Such a process would provide a role for the SPO in setting priorities for Section 8 grants based on its role in developing overall State policies for growth and development.

In short, EPA and the States should strive to involve State and areawide water quality management planning agencies in these efforts. Only through the active participation of State water quality planning agencies, supported and augmented by SPOs, can those responsible for water quality management planning influence, and be influenced by, State policies which directly or indirectly effect their mission.

The Clearinghouse Process

The formulation of State and areawide plans and policies related to water quality planning can also be improved through a general upgrading of the A-95 process at the State and regional levels. Until State water quality planning agencies develop the necessary planning capabilities to relate water quality management planning to comprehensive planning, they will be totally dependent on their relationship with the State Clearinghouse to identify and analyze these linkages.

The only reliable communication linkage that now exists between State Clearinghouses and water quality management agencies is the review and comment process of A-95. However, the ability of State Clearinghouses to adequately support State water quality planning agencies in linking water quality planning with comprehensive planning depends on the Clearinghouse's ability to deal with the technical aspects of water quality planning. To effectively cope with this level of technical detail, the State Clearinghouse must depend on the capabilities of Regional Clearinghouses and the quality of their inputs through the PNRS and environmental assessment procedures.

The field survey found that State Clearinghouses are relying on the environmental input process instead of PNRS to cope with the secondary and long-range effects of projects related to water quality. The requirement for an environmental input places the burden of proof on the applicant to demonstrate that the proposed project will have no detrimental effects. Under PNRS, the burden of proof is placed on the Clearinghouse, and without State plans, policies or laws to support adverse comments on project applications, the Clearinghouses are reluctant to take a strong negative position on the basis of hurried projections of the **probable** consequences of a specific project.

Futhermore, the environmental inpact statement is not a planning tool. It is usually prepared after planning for a project has been completed. At this point, whatever action taken as a result of the preparation of an environmental impact statement will be negative. Either the project will be disapproved, held up until certain problems are resolved, or approved after a significant amount of time and resources are committed to preparation of an environmental assessment which concludes that the project will have an insignificant impact on the environment.

The entire PNRS and environmental input process can be improved by requiring preliminary environmental assessments in the initial planning process. At the time project applications flow through the PNRS procedure, this preliminary environmental assessment should be included. Regional Clearinghouses should review and, if necessary, update the preliminary assessment. The State Clearinghouse should review the project through PNRS to determine if this environmental review was satisfactorily performed by the Regional Clearinghouse and if any additional secondary or long-range effects can be identified.

This procedure has particular implications for water quality management planning. The EPA Guidelines require environmental assessments to be included in River Basin and areawide Water Quality Management Plans. All regional PNRS reviews of applications for Section 8 grants should include an environmental assessment based on the applicable water quality management plan. The State Clearinghouse should then review the areawide environmental input and identify any other long-range or secondary effects through PNRS early warning procedures, as well as reviewing the project for consistency with the applicable river basin plan and the listing of annual priorities in the State Program Plan.

Two problems must be overcome to improve the role of SPOs and the performance of the A-95 process in nonmetropolitan areas. The greatest threat to unified comprehensive and functional planning derives from the tendency of Federal agencies and their State agency counterparts to treat complex problems as a single problem with a single solution in the form of the agency's own program. EPA must strive to avoid this myopic approach to water quality management. The reliance on SPOs to play a key role in water quality management planning within each State should lessen this threat.

Correspondingly, SPOs must make every effort to assure nonmetropolitan planning organizations that they understand their problems and support their planned goals and objectives for growth and development. The survey found that in some States, nonmetropolitan planning staffs and officials believe that their problems and planning objectives are not receiving adequate attention and support in terms of State policies, priorities and funds. This is particularly true in States where problems associated with urban growth have taken priority. If nonmetropolitan planning agencies do not feel that they can look to their SPO and State water quality planning agency for support, the prospects for establishing an effective water quality management planning process in these areas will be seriously diminished.

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